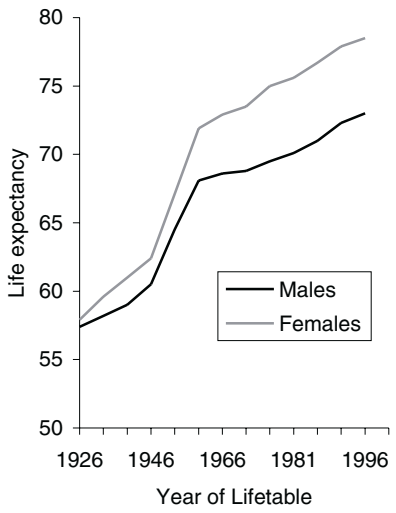
Central Statistics Office
An Phríomh-Oifig Staidrimh

26 September 2001

Irish Life Table No. 13
1995-1997

Life expectancy at birth



Life expectancy at certain ages

Age	Males	Females
0	73.0	78.5
45	30.4	35.0
65	13.8	17.4

Women live 5.5 years longer than men

In 1996 the life expectancy at birth was 73.0 years for males and 78.5 years for females - gap of 5.5 years. Between 1991 and 1996 life expectancy improved by 0.7 years for males and 0.6 years for females. *(see Tables 1 and 2)*

Life expectancy has increased consistently for both men and women since the first life table was compiled in 1926. In that year males had life expectancy of 57.4 years while it was slightly higher for females at 57.9 years. The improvement is a direct result of decreasing mortality, particularly infant mortality rates over the period. Much of the improvement occurred between 1946 and 1961 and, to a lesser degree, from 1986 to date. *(See Table 3 and graph across)*

The gap in life expectancy between men and women has generally increased over the last 70 years at all ages. Since 1926 life expectancy of male infants has increased by 16 years or 27% while for female infants the increase was 21 years or 36%. Over the same period the life expectancy for 65 year old males has increased by 1 year or 8% and more significantly by 4 years or 30% for females.

The increasing gap in life expectancy between the sexes is also true internationally. In 1960 the EU15 average was 5.5 years while in 1996 it increased to 6.4 years. This places Ireland below the EU15 average. In 1960, Sweden had the smallest gap at 3.7 years while Finland had the largest gap at 7 years while in 1996, Sweden again had the smallest gap at 5 years while France had the largest gap at 7.9 years. *(See Tables 4 and 5).*

In 1996, Irish life expectancy at birth ranked second last out of the 15 Member States for both sexes. In 1960 the picture was the same for females but Irish males ranked higher than the EU15 average at 4th place.

Since 1960 the improvements in Irish life expectancy were not as marked as in most other European Union countries. On average the life expectancy of EU male infants increased by 6.8 years between 1960 and 1996 compared with an increase of 4.9 years for Irish males. The improvement in the life expectancy of females in the EU over the period, at 7.7 years, was also better than the increase of 6.6 recorded for Irish females.

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Table 1 Irish Life Table No. 13 1995-97, Males

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e^o_x	Age x
0	100,000	705	0.99295	0.00705	99,376	7,296,942	72.97	0
1	99,295	36	0.99964	0.00036	99,277	7,197,566	72.49	1
2	99,259	35	0.99964	0.00036	99,242	7,098,289	71.51	2
3	99,224	21	0.99979	0.00021	99,213	6,999,047	70.54	3
4	99,203	22	0.99977	0.00023	99,192	6,899,834	69.55	4
5	99,181	18	0.99982	0.00018	99,172	6,800,642	68.57	5
6	99,163	15	0.99985	0.00015	99,155	6,701,470	67.58	6
7	99,148	18	0.99982	0.00018	99,139	6,602,315	66.59	7
8	99,130	17	0.99983	0.00017	99,121	6,503,176	65.60	8
9	99,113	16	0.99984	0.00016	99,105	6,404,055	64.61	9
10	99,097	17	0.99983	0.00017	99,089	6,304,950	63.62	10
11	99,080	19	0.99981	0.00019	99,071	6,205,861	62.63	11
12	99,062	23	0.99977	0.00023	99,050	6,106,790	61.65	12
13	99,039	29	0.99970	0.00030	99,024	6,007,740	60.66	13
14	99,009	38	0.99961	0.00039	98,990	5,908,716	59.68	14
15	98,971	49	0.99950	0.00050	98,946	5,809,726	58.70	15
16	98,922	61	0.99939	0.00061	98,892	5,710,779	57.73	16
17	98,861	72	0.99927	0.00073	98,825	5,611,887	56.77	17
18	98,789	86	0.99913	0.00087	98,746	5,513,062	55.81	18
19	98,703	102	0.99897	0.00103	98,653	5,414,316	54.85	19
20	98,602	117	0.99881	0.00119	98,543	5,315,663	53.91	20
21	98,484	131	0.99867	0.00133	98,419	5,217,120	52.97	21
22	98,354	138	0.99859	0.00141	98,284	5,118,702	52.04	22
23	98,215	139	0.99858	0.00142	98,146	5,020,417	51.12	23
24	98,076	135	0.99862	0.00138	98,009	4,922,271	50.19	24
25	97,941	128	0.99869	0.00131	97,877	4,824,263	49.26	25
26	97,813	121	0.99876	0.00124	97,753	4,726,386	48.32	26
27	97,692	117	0.99880	0.00120	97,634	4,628,633	47.38	27
28	97,575	116	0.99882	0.00118	97,518	4,530,999	46.44	28
29	97,460	115	0.99882	0.00118	97,402	4,433,482	45.49	29
30	97,345	116	0.99881	0.00119	97,287	4,336,079	44.54	30
31	97,229	117	0.99880	0.00120	97,170	4,238,792	43.60	31
32	97,112	119	0.99877	0.00123	97,052	4,141,622	42.65	32
33	96,993	122	0.99875	0.00125	96,932	4,044,569	41.70	33
34	96,871	125	0.99871	0.00129	96,809	3,947,637	40.75	34
35	96,747	129	0.99867	0.00133	96,682	3,850,828	39.80	35
36	96,618	134	0.99861	0.00139	96,551	3,754,146	38.86	36
37	96,484	140	0.99855	0.00145	96,414	3,657,596	37.91	37
38	96,344	147	0.99848	0.00152	96,271	3,561,182	36.96	38
39	96,197	154	0.99840	0.00160	96,121	3,464,911	36.02	39
40	96,044	162	0.99831	0.00169	95,963	3,368,791	35.08	40
41	95,882	173	0.99820	0.00180	95,795	3,272,828	34.13	41
42	95,709	186	0.99806	0.00194	95,616	3,177,032	33.19	42
43	95,523	202	0.99789	0.00211	95,422	3,081,416	32.26	43
44	95,321	219	0.99771	0.00229	95,212	2,985,994	31.33	44
45	95,103	239	0.99749	0.00251	94,983	2,890,782	30.40	45
46	94,864	263	0.99723	0.00277	94,733	2,795,798	29.47	46
47	94,601	292	0.99691	0.00309	94,455	2,701,066	28.55	47
48	94,309	327	0.99653	0.00347	94,146	2,606,610	27.64	48
49	93,982	365	0.99611	0.00389	93,799	2,512,465	26.73	49
50	93,617	408	0.99564	0.00436	93,413	2,418,665	25.84	50
51	93,208	457	0.99509	0.00491	92,980	2,325,253	24.95	51
52	92,751	513	0.99447	0.00553	92,495	2,232,273	24.07	52
53	92,238	574	0.99378	0.00622	91,952	2,139,778	23.20	53
54	91,665	639	0.99303	0.00697	91,345	2,047,827	22.34	54

Table 1 Irish Life Table No. 13 1995-97, Males (contd.)

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e^o_x	Age x
55	91,026	710	0.99219	0.00781	90,671	1,956,481	21.49	55
56	90,315	789	0.99126	0.00874	89,921	1,865,811	20.66	56
57	89,526	877	0.99020	0.00980	89,087	1,775,890	19.84	57
58	88,648	971	0.98904	0.01096	88,163	1,686,803	19.03	58
59	87,677	1070	0.98779	0.01221	87,142	1,598,640	18.23	59
60	86,607	1177	0.98641	0.01359	86,019	1,511,498	17.45	60
61	85,430	1294	0.98485	0.01515	84,783	1,425,480	16.69	61
62	84,136	1426	0.98306	0.01694	83,423	1,340,697	15.93	62
63	82,710	1568	0.98104	0.01896	81,926	1,257,274	15.20	63
64	81,142	1719	0.97882	0.02118	80,283	1,175,347	14.49	64
65	79,424	1878	0.97636	0.02364	78,485	1,095,064	13.79	65
66	77,546	2047	0.97361	0.02639	76,522	1,016,580	13.11	66
67	75,499	2226	0.97052	0.02948	74,386	940,057	12.45	67
68	73,273	2416	0.96703	0.03297	72,065	865,671	11.81	68
69	70,857	2613	0.96312	0.03688	69,551	793,606	11.20	69
70	68,244	2808	0.95885	0.04115	66,840	724,055	10.61	70
71	65,436	2993	0.95427	0.04573	63,939	657,215	10.04	71
72	62,443	3157	0.94944	0.05056	60,864	593,276	9.50	72
73	59,286	3293	0.94445	0.05555	57,639	532,412	8.98	73
74	55,993	3404	0.93921	0.06079	54,291	474,772	8.48	74
75	52,589	3492	0.93359	0.06641	50,843	420,481	8.00	75
76	49,097	3564	0.92741	0.07259	47,315	369,638	7.53	76
77	45,533	3621	0.92048	0.07952	43,722	322,324	7.08	77
78	41,912	3663	0.91261	0.08739	40,081	278,602	6.65	78
79	38,249	3679	0.90382	0.09618	36,410	238,521	6.24	79
80	34,570	3658	0.89419	0.10581	32,741	202,111	5.85	80
81	30,912	3591	0.88384	0.11616	29,117	169,370	5.48	81
82	27,322	3472	0.87293	0.12707	25,586	140,253	5.13	82
83	23,850	3307	0.86132	0.13868	22,196	114,667	4.81	83
84	20,542	3105	0.84883	0.15117	18,990	92,471	4.50	84
85	17,437	2868	0.83552	0.16448	16,003	73,481	4.21	85
86	14,569	2601	0.82146	0.17854	13,268	57,478	3.95	86
87	11,968	2312	0.80679	0.19321	10,812	44,210	3.69	87
88	9,656	2015	0.79133	0.20867	8,648	33,398	3.46	88
89	7,641	1718	0.77513	0.22487	6,782	24,750	3.24	89
90	5,923	1432	0.75818	0.24182	5,206	17,968	3.03	90
91	4,490	1165	0.74050	0.25950	3,908	12,762	2.84	91
92	3,325	924	0.72206	0.27794	2,863	8,854	2.66	92
93	2,401	713	0.70289	0.29711	2,044	5,991	2.50	93
94	1,688	535	0.68297	0.31703	1,420	3,947	2.34	94
95	1,153	389	0.66231	0.33769	958	2,527	2.19	95
96	763	274	0.64090	0.35910	626	1,569	2.05	96
97	489	187	0.61875	0.38125	396	942	1.93	97
98	303	122	0.59586	0.40414	242	546	1.80	98
99	180	77	0.57223	0.42777	142	305	1.69	99
100	103	47	0.54785	0.45215	80	163	1.58	100
101	57	27	0.52272	0.47728	43	83	1.47	101
102	30	15	0.49686	0.50314	22	40	1.36	102
103	15	8	0.47025	0.52975	11	18	1.22	103
104	7	4	0.44289	0.55711	5	7	1.03	104
105	3	2	0.41480	0.58520	2	2	0.71	105

Table 2 Irish Life Table No. 13 1995-97, Females

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e^o_x	Age x
0	100,000	601	0.99399	0.00601	99,484	7,851,583	78.52	0
1	99,399	48	0.99952	0.00048	99,375	7,752,099	77.99	1
2	99,351	32	0.99968	0.00032	99,335	7,652,724	77.03	2
3	99,319	24	0.99976	0.00024	99,307	7,553,388	76.05	3
4	99,295	20	0.99980	0.00020	99,285	7,454,081	75.07	4
5	99,276	11	0.99989	0.00011	99,270	7,354,795	74.08	5
6	99,265	8	0.99992	0.00008	99,260	7,255,525	73.09	6
7	99,256	9	0.99991	0.00009	99,252	7,156,265	72.10	7
8	99,247	8	0.99992	0.00008	99,243	7,057,013	71.11	8
9	99,239	9	0.99991	0.00009	99,234	6,957,771	70.11	9
10	99,230	10	0.99990	0.00010	99,225	6,858,536	69.12	10
11	99,220	12	0.99988	0.00012	99,215	6,759,311	68.12	11
12	99,209	14	0.99986	0.00014	99,202	6,660,096	67.13	12
13	99,195	17	0.99983	0.00017	99,187	6,560,894	66.14	13
14	99,179	21	0.99979	0.00021	99,168	6,461,707	65.15	14
15	99,158	25	0.99975	0.00025	99,146	6,362,539	64.17	15
16	99,133	29	0.99971	0.00029	99,119	6,263,393	63.18	16
17	99,105	31	0.99968	0.00032	99,089	6,164,274	62.20	17
18	99,073	33	0.99967	0.00033	99,057	6,065,185	61.22	18
19	99,040	33	0.99966	0.00034	99,024	5,966,129	60.24	19
20	99,007	33	0.99966	0.00034	98,990	5,867,105	59.26	20
21	98,974	33	0.99966	0.00034	98,957	5,768,115	58.28	21
22	98,940	34	0.99966	0.00034	98,923	5,669,158	57.30	22
23	98,906	35	0.99965	0.00035	98,889	5,570,234	56.32	23
24	98,871	36	0.99963	0.00037	98,853	5,471,345	55.34	24
25	98,835	38	0.99962	0.00038	98,816	5,372,492	54.36	25
26	98,798	39	0.99960	0.00040	98,778	5,273,676	53.38	26
27	98,759	41	0.99958	0.00042	98,738	5,174,898	52.40	27
28	98,717	43	0.99956	0.00044	98,696	5,076,160	51.42	28
29	98,674	46	0.99953	0.00047	98,651	4,977,464	50.44	29
30	98,628	49	0.99950	0.00050	98,603	4,878,813	49.47	30
31	98,579	52	0.99947	0.00053	98,553	4,780,210	48.49	31
32	98,526	55	0.99944	0.00056	98,499	4,681,657	47.52	32
33	98,471	58	0.99941	0.00059	98,442	4,583,158	46.54	33
34	98,413	60	0.99939	0.00061	98,383	4,484,716	45.57	34
35	98,353	62	0.99937	0.00063	98,322	4,386,333	44.60	35
36	98,291	66	0.99933	0.00067	98,258	4,288,011	43.63	36
37	98,225	72	0.99927	0.00073	98,189	4,189,754	42.65	37
38	98,153	79	0.99919	0.00081	98,114	4,091,565	41.69	38
39	98,074	88	0.99910	0.00090	98,030	3,993,451	40.72	39
40	97,986	99	0.99899	0.00101	97,937	3,895,421	39.75	40
41	97,887	110	0.99888	0.00112	97,832	3,797,485	38.79	41
42	97,777	123	0.99874	0.00126	97,716	3,699,653	37.84	42
43	97,654	136	0.99861	0.00139	97,586	3,601,937	36.88	43
44	97,518	150	0.99846	0.00154	97,443	3,504,350	35.94	44
45	97,368	166	0.99830	0.00170	97,285	3,406,907	34.99	45
46	97,203	183	0.99812	0.00188	97,111	3,309,622	34.05	46
47	97,020	203	0.99790	0.00210	96,918	3,212,511	33.11	47
48	96,816	227	0.99766	0.00234	96,703	3,115,593	32.18	48
49	96,589	253	0.99738	0.00262	96,463	3,018,890	31.25	49
50	96,337	281	0.99708	0.00292	96,196	2,922,427	30.34	50
51	96,056	310	0.99677	0.00323	95,900	2,826,231	29.42	51
52	95,745	341	0.99644	0.00356	95,575	2,730,331	28.52	52
53	95,405	369	0.99613	0.00387	95,220	2,634,756	27.62	53
54	95,036	396	0.99584	0.00416	94,838	2,539,536	26.72	54

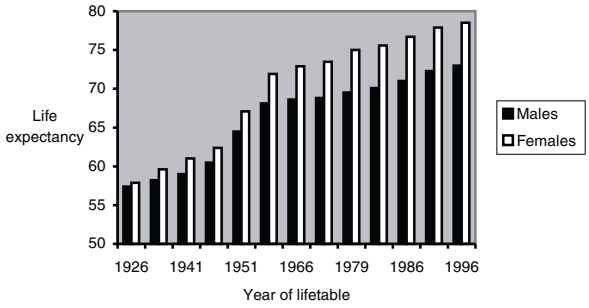
Table 2 Irish Life Table No. 13 1995-97, Females (contd.)

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e^o_x	Age x
55	94,640	425	0.99551	0.00449	94,428	2,444,698	25.83	55
56	94,215	460	0.99512	0.00488	93,985	2,350,270	24.95	56
57	93,755	506	0.99461	0.00539	93,502	2,256,285	24.07	57
58	93,250	561	0.99398	0.00602	92,969	2,162,783	23.19	58
59	92,688	624	0.99327	0.00673	92,376	2,069,814	22.33	59
60	92,064	694	0.99246	0.00754	91,717	1,977,437	21.48	60
61	91,371	771	0.99156	0.00844	90,985	1,885,720	20.64	61
62	90,600	855	0.99057	0.00943	90,172	1,794,735	19.81	62
63	89,745	942	0.98950	0.01050	89,274	1,704,562	18.99	63
64	88,803	1032	0.98838	0.01162	88,287	1,615,288	18.19	64
65	87,771	1130	0.98713	0.01287	87,206	1,527,001	17.40	65
66	86,641	1239	0.98570	0.01430	86,022	1,439,795	16.62	66
67	85,402	1366	0.98401	0.01599	84,719	1,353,774	15.85	67
68	84,036	1508	0.98205	0.01795	83,282	1,269,055	15.10	68
69	82,528	1663	0.97984	0.02016	81,696	1,185,772	14.37	69
70	80,865	1828	0.97740	0.02260	79,951	1,104,076	13.65	70
71	79,037	1998	0.97473	0.02527	78,038	1,024,125	12.96	71
72	77,039	2170	0.97183	0.02817	75,954	946,087	12.28	72
73	74,869	2332	0.96885	0.03115	73,703	870,133	11.62	73
74	72,537	2485	0.96575	0.03425	71,295	796,430	10.98	74
75	70,052	2640	0.96231	0.03769	68,732	725,135	10.35	75
76	67,412	2811	0.95830	0.04170	66,007	656,403	9.74	76
77	64,601	3008	0.95343	0.04657	63,097	590,396	9.14	77
78	61,593	3234	0.94750	0.05250	59,976	527,299	8.56	78
79	58,359	3470	0.94053	0.05947	56,624	467,323	8.01	79
80	54,889	3696	0.93267	0.06733	53,041	410,699	7.48	80
81	51,193	3889	0.92403	0.07597	49,248	357,659	6.99	81
82	47,304	4030	0.91481	0.08519	45,289	308,410	6.52	82
83	43,274	4118	0.90485	0.09515	41,216	263,121	6.08	83
84	39,157	4155	0.89388	0.10612	37,079	221,905	5.67	84
85	35,001	4131	0.88199	0.11801	32,936	184,827	5.28	85
86	30,871	4035	0.86930	0.13070	28,853	151,891	4.92	86
87	26,836	3865	0.85597	0.14403	24,903	123,037	4.58	87
88	22,971	3635	0.84178	0.15822	21,153	98,134	4.27	88
89	19,336	3350	0.82677	0.17323	17,661	76,981	3.98	89
90	15,987	3022	0.81096	0.18904	14,476	59,319	3.71	90
91	12,964	2666	0.79434	0.20566	11,631	44,844	3.46	91
92	10,298	2297	0.77691	0.22309	9,149	33,212	3.23	92
93	8,001	1931	0.75867	0.24133	7,035	24,063	3.01	93
94	6,070	1580	0.73962	0.26038	5,280	17,028	2.81	94
95	4,489	1258	0.71976	0.28024	3,860	11,748	2.62	95
96	3,231	972	0.69909	0.30091	2,745	7,888	2.44	96
97	2,259	728	0.67762	0.32238	1,895	5,143	2.28	97
98	1,531	528	0.65533	0.34467	1,267	3,248	2.12	98
99	1,003	369	0.63224	0.36776	819	1,981	1.97	99
100	634	248	0.60834	0.39166	510	1,162	1.83	100
101	386	161	0.58363	0.41637	305	652	1.69	101
102	225	100	0.55811	0.44189	175	347	1.54	102
103	126	59	0.53178	0.46822	96	171	1.36	103
104	67	33	0.50464	0.49536	50	75	1.12	104
105	34	18	0.47669	0.52331	25	25	0.74	105

Table 3 Expectation of Life at various ages, 1926-1996

Irish Life Table No.	Period	Age in years 0	5	10	15	20	25	35	45	55	65	75
						Males						
1	1925-27	57.4	59.5	55.2	50.7	46.4	42.4	34.4	26.5	19.1	12.8	7.7
2	1935-37	58.2	60.1	55.8	51.2	46.8	42.7	34.4	26.3	18.8	12.5	7.9
3	1940-42	59.0	60.7	56.3	51.6	47.2	43.1	34.8	26.5	18.8	12.3	7.3
4	1945-47	60.5	61.5	56.9	52.2	47.8	43.5	34.9	26.4	18.6	12.0	6.9
5	1950-52	64.5	63.6	58.8	54.0	49.3	44.8	35.8	27.0	19.0	12.1	6.8
6	1960-62	68.1	65.7	60.8	56.0	51.1	46.4	37.0	27.8	19.5	12.6	7.1
7	1965-67	68.6	65.7	60.8	56.0	51.2	46.4	36.9	27.7	19.3	12.4	7.3
8	1970-72	68.8	65.5	60.6	55.7	51.0	46.3	36.8	27.6	19.3	12.4	7.3
9	1978-80	69.5	65.7	60.8	55.9	51.1	46.4	36.9	27.7	19.3	12.4	7.1
10	1980-82	70.1	66.1	61.3	56.4	51.6	46.9	37.3	28.1	19.6	12.6	7.3
11	1985-87	71.0	66.8	61.9	57.0	52.2	47.4	37.9	28.5	19.8	12.6	7.3
12	1990-92	72.3	68.0	63.1	58.2	53.4	48.6	39.2	29.7	20.9	13.4	7.8
13	1995-97	73.0	68.6	63.6	58.7	53.9	49.3	39.8	30.4	21.5	13.8	8.0
						Females						
1	1925-27	57.9	59.2	54.9	50.5	46.4	42.4	34.7	27.0	19.6	13.4	8.4
2	1935-37	59.6	60.4	56.1	51.6	47.3	43.2	35.2	27.2	19.6	13.1	8.4
3	1940-42	61.0	61.4	56.9	52.4	48.0	44.0	35.8	27.6	19.8	13.2	8.1
4	1945-47	62.4	62.5	57.9	53.2	48.8	44.7	36.3	28.0	20.1	13.1	7.7
5	1950-52	67.1	65.4	60.6	55.8	51.2	46.6	37.7	28.9	20.6	13.3	7.6
6	1960-62	71.9	69.0	64.1	59.2	54.3	49.5	39.9	30.7	22.1	14.4	8.1
7	1965-67	72.9	69.6	64.8	59.8	54.9	50.1	40.4	31.1	22.4	14.7	8.4
8	1970-72	73.5	70.0	65.1	60.2	55.3	50.5	40.8	31.4	22.7	15.0	8.5
9	1978-80	75.0	71.0	66.1	61.1	56.2	51.4	41.6	32.1	23.3	15.4	8.8
10	1980-82	75.6	71.5	66.6	61.7	56.8	51.9	42.1	32.6	23.7	15.7	9.1
11	1985-87	76.7	72.4	67.5	62.5	57.6	52.7	42.9	33.3	24.3	16.2	9.5
12	1990-92	77.9	73.5	68.6	63.6	58.7	53.8	44.0	34.5	25.4	17.1	10.2
13	1995-97	78.5	74.1	69.1	64.2	59.3	54.4	44.6	35.0	25.8	17.4	10.4

Life expectancy at birth



Life expectancy at age 65

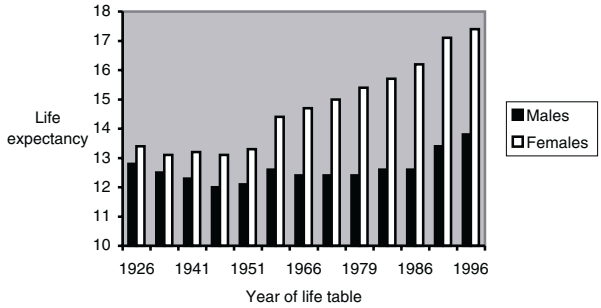


Table 4 Life expectancy in 1996 at various ages for some European Union countries

Country	Age 0	15	30	45	55	65	75	85
				Males				
European Union (15 countries)	74.2	59.9	45.6	31.7	23.0	15.4	9.3	5.0
Belgium	73.8	59.5	45.3	31.4	22.7	15.0	8.8	4.6
Denmark	73.1	58.7	44.3	30.5	21.8	14.4	8.6	4.7
Germany	73.6	59.2	44.9	30.9	22.4	14.9	8.9	4.8
Greece	75.1	60.9	46.8	32.8	24.0	16.1	9.8	5.6
Spain	74.4	60.1	45.9	32.4	23.7	16.0	9.6	5.0
France	74.1	59.7	45.6	32.0	23.6	16.1	9.8	5.2
Ireland	**73.0**	**58.7**	**44.5**	**30.4**	**21.5**	**13.8**	**8.0**	**4.2**
Italy	75.3	61.0	46.7	32.7	23.8	16.0	9.7	5.2
Luxembourg	73.3	58.9	44.6	30.7	22.0	14.8	8.6	4.6
Netherlands	74.7	60.3	45.8	31.6	22.6	14.8	8.6	4.6
Austria	73.9	59.5	45.3	31.3	22.8	15.3	9.2	4.7
Portugal	71.1	57.1	43.3	30.1	21.6	14.2	8.1	3.8
Finland	73.0	58.5	44.3	30.6	22.2	14.6	8.7	4.7
Sweden	76.5	62.0	47.4	33.2	24.2	16.1	9.5	4.8
United Kingdom	74.3	60.0	45.6	31.5	22.6	14.8	8.9	4.9
				Females				
European Union (15 countries)	80.6	66.2	51.5	37.1	27.9	19.2	11.6	6.0
Belgium	80.5	66.0	51.4	37.0	27.9	19.2	11.6	5.8
Denmark	78.2	63.8	49.1	34.7	25.8	17.8	11.1	5.8
Germany	79.9	65.4	50.7	36.3	27.2	18.6	11.1	5.6
Greece	80.4	66.1	51.4	36.9	27.5	18.6	10.8	5.6
Spain	81.7	67.3	52.6	38.2	28.9	19.9	11.9	5.8
France	82.0	67.5	52.8	38.5	29.4	20.6	12.6	6.4
Ireland	**78.5**	**64.2**	**49.5**	**35.0**	**25.8**	**17.4**	**10.4**	**5.3**
Italy	81.4	67.1	52.4	37.9	28.6	19.8	12.0	6.0
Luxembourg	79.9	65.6	51.1	36.9	27.7	19.2	11.6	5.9
Netherlands	80.3	65.9	51.2	36.8	27.6	19.0	11.5	5.8
Austria	80.2	65.7	51.0	36.5	27.4	18.8	11.2	5.4
Portugal	78.6	64.4	49.8	35.5	26.4	17.7	10.0	4.5
Finland	80.5	66.0	51.2	36.8	27.6	18.7	11.0	5.5
Sweden	81.5	66.9	52.1	37.6	28.4	19.7	12.0	6.0
United Kingdom	79.5	65.0	50.3	35.9	26.7	18.3	11.3	6.1

Note: figures for EU15 and Belgium are provisional

Source : Eurostat New Cronos Database

Table 5 Life expectancy at birth and at age 65 for some European Union countries in 1960

Country	Age = 0 Males	Age = 0 Females	Age = 65 Males	Age = 65 Females
European Union (15 countries)	67.4	72.9	12.7	15.1
Belgium	67.7	73.5	12.4	14.8
Denmark	70.4	74.4	13.7	15.3
Germany	66.9	72.4	12.4	14.6
Greece	67.3	72.4	13.4	14.6
Spain	67.4	72.2	13.1	15.3
France	66.9	73.6	12.5	15.6
Ireland	**68.1**	**71.9**	**12.6**	**14.4**
Italy	67.2	72.3	13.4	15.3
Luxembourg	66.5	72.2	12.5	14.5
Netherlands	71.5	75.3	14.2	15.7
Austria	66.2	72.7	-	-
Portugal	61.2	66.8	13.0	15.3
Finland	65.5	72.5	-	-
Sweden	71.2	74.9	13.7	15.3
United Kingdom	67.9	73.7	11.9	15.1

Note: figures for EU15 provisional, no data available for Austria or Finland at age 65

Source : Eurostat New Cronos Database

Background Notes

A Life Table is a method of deriving measures which are representative of average life expectancy prevailing at a given time. It is compiled in a manner that eliminates the effect of the current age composition in question. This age composition may change over time and thus affect comparisons using other measures such as the number of deaths per 1,000 population.

A Life Table is purely a hypothetical calculation. The basic assumption is that a given cohort of births, (100,000), start in a given year. These are subject, as the survivors pass through each year of age, to the mortality rates prevailing for that age in the years for which the Life Table is being calculated. Thus, the Life Table deals with current mortality rates only and no assumptions are made about future changes. The mortality rates for each age are used to calculate how many of the cohort will reach each year of age until eventually all members of the cohort have died. This enables the total number of years lived by the cohort to be calculated. When this total is divided by the number of persons in the cohort, (100,000) the result is the average number of years lived in the cohort, or the mean expectation of life at birth. The total number of years lived by the cohort from any given age can also be calculated and, when divided by the number of survivors in the cohort entering upon that year of age, the figure obtained is the expectation of life in years for those persons.

Life tables were constructed for males and females which are representative of the mortality experience in Ireland in 1996 by using the 1996 Census of Population and deaths enumerated in the three years 1995, 1996 and 1997. The life table should reflect the normal mortality conditions at about the time of the Census.[1] The Irish Statistical Bulletin, Sept. – Dec. 1985, contains further detail on the construction of Life Tables. References to previous Life Tables are given on page 12.

Glossary of technical terms

- x the exact age of the person, that is, on his or her birthday.
- l_x the number of persons surviving to exact age x out of the original 100,000 aged 0.
- d_x the number of deaths in the year of age x to x+1 out of l_x persons who enter that year.
- p_x the probability of surviving a year, or the ratio of the number completing the year of age x to x+1 to the number entering on the year.
- q_x the rate of mortality, the probability of dying in a year, or the ratio of the number of deaths in the year of age x to x+1 to the number entering on the year.
- L_x the population to be expected according to the Life Table aged between x and x+1 years, assuming deaths occur evenly over year (see page 10).
- T_x the expected number of person years to be lived by the survivors at age x.
- e^o_x life expectancy at age x for each person surviving, or the total future life time in years which will on average be passed through by persons aged exactly x.

Examples

Figures from the Male Irish Life Table No. 13 are used in the examples below. Please note that totals may not add up due to rounding. The graphs represent data from Life Tables 7 and 13 for females.

The first column of the life table, l_x equals the number of persons surviving in the life table at each exact age x. l_x is also called the life table function. l_0 represents the life table population of new born children or those aged exactly zero. If we let l_0 equal 100,000 then for example, l_5 is the number of persons surviving on their fifth birthday, which in this case equals 99,181.

[1] In 1997 the number of male early neonatal deaths were exceptionally low and considering this it was decided to substitute it with a hypothetical figure more reflective of the average mortality experience of the time.

The second column of the life table, d_x equals the expected number of deaths of persons aged age x in the life table.

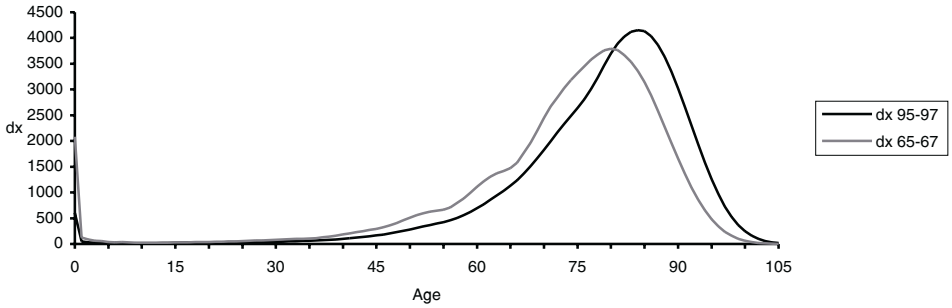
$$d_x = l_x - l_{x+1} \qquad \textit{equation 1}$$

Equation 1 tells us that the number of deaths equals the number of persons surviving at age x less the number of persons surviving at age x+1.

e.g. for males aged 5

$$\begin{aligned} d_5 &= l_5 - l_6 \\ &= 99181 - 99163 \\ &= 18 \end{aligned}$$

Female mortality by age



The third column of the life table, p_x equals the probability of surviving from exact age x to x+1. This is simply the ratio of those completing the year of age x to x+1 to the number entering the year. For example, p_5 is the probability of surviving ones fifth year, which in this case equals 0.99982.

$$p = \frac{l_{x+1}}{l_x} \qquad \textit{equation 2}$$

Rewriting equation 2 where age x = 10, we see the number of persons surviving to their eleventh birthday equals the number of persons at their tenth birthday multiplied by the probability of their surviving to their eleventh, the remainder having of course died. Migration is ignored in a life table as the population is closed.

$$\begin{aligned} l_{11} &= l_{10} \cdot p_{10} \\ &= 99097 \times 0.99983 \\ &= 99080 \end{aligned}$$

The fourth column of the life table, q_x equals the probability of dying between one birthday and the next . This may also be called the risk of dying in a life table year, in other words the risk of dying at a particular age. The probability of dying and the probability of survival equal unity. In other words one can only be alive or dead.

$$p_x + q_x = 1 \qquad \textit{equation 3}$$

From equations 1, 2 and 3:

$$q_x = \frac{d_x}{l_x} \qquad \textit{equation 4}$$

So the probability of dying is the ratio of the number of deaths at exact age x divided by the number of persons surviving at that exact age. Hence we say the life table is based on 'current mortality rates only and that no assumptions are made about future changes'.

The fifth column of the life table, L_x equals the number of years survived by the life table cohort between the ages x and x+1. Assuming a uniform distribution of deaths over a year of age and using equation 1 we find:

$$\begin{aligned} L_x &= l_x - \frac{d_x}{2} \\ &= l_x - \frac{l_x - l_{x+1}}{2} \\ &= \frac{l_x + l_{x+1}}{2} \qquad (x>0) \end{aligned}$$

equation 5

e.g. for age 1 this means

$$L_1 = l_1 - \frac{d_1}{2} = 99295 - \frac{36}{2} = 99277$$

or

$$L_1 = \frac{l_1 + l_2}{2} = \frac{99295 + 99259}{2} = 99277$$

This cannot be used at age 0 as infant deaths are not evenly distributed (i.e. they are non-linear over a year). For example, in 1996 37% of all infant deaths occurred on their first day of life.

The sixth column of the life table, T_x equals the total number of years which will be survived at age x, l_x. So if L_x is person years, then T_x is cumulated person years, i.e.

$$T_x = \sum_{x}^{105} L_x$$

equation 6

e.g.

$$T_{102} = L_{102} + L_{103} + L_{104} + L_{105}$$

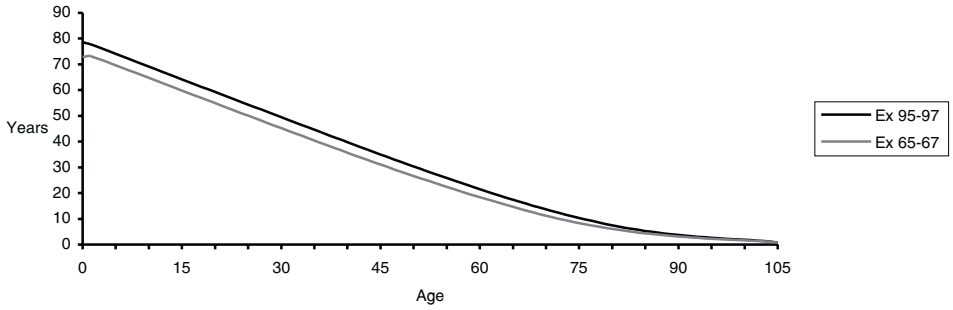
The final column of the life table, e^0_x is the life expectancy in years

$$e^0_x = \frac{T_x}{l_x}$$

equation 7

e^0_0 represents life expectancy at birth and it is broadly used to express the level of mortality. Life expectancy is the average number of additional years a person would live if current mortality trends were to continue. The expectation of life at birth represents the mean length of life of individuals who are subjected since birth to current mortality trends. Life expectancy is usually compiled on the basis of a life table showing the probability of dying at each age for a given population according to the age specific death rates prevailing in a given period.

Female life expectancy at birth



Further information

From equation 3 we see the link between the probability of surviving with that of dying, therefore we can make assumptions on the probability of surviving from the probability of dying. This is what is referred to in population projections as the mortality assumption.

$$S_x = \frac{L_x}{L_{x-1}}$$

The survivorship ratio at age x, S_x , equals the ratio of those surviving between ages x and x+1 and those surviving between the ages x-1 and x, e.g. the ratio of those aged 5-9 surviving to age 10-14 is calculated as follows:

$$s_{10-14} = \frac{\sum_{10}^{14} L_x}{\sum_{5}^{9} L_x}$$

Publications containing Life Tables Nos. 1 - 12

LIFE TABLE	*PUBLICATION*
No. 1	Census of Population of Ireland, 1926 – Vol. V (Part 1).
No. 2	Census of Population of Ireland, 1936 – Vol. V (Part 1).
No. 3	Register of Population of Ireland, 1941.
No. 4	Census of Population of Ireland, 1946 – Vol. (Part 1).
No. 5	Census of Population of Ireland – General Report 1946 and 1951.
No. 6	Irish Statistical Bulletin – June, 1965.
No. 7	Census of Popualtion of Ireland, 1971 – Vol. II. Irish Statistical Bulletin – March, 1972.
No. 8	Irish Statistical Bulletin – March, 1996.
No. 9	Census of Population of Ireland, 1981 – Vol. II. Irish Statistical Bulletin – June, 1984.
No. 10	Irish Statistical Bulletin – September – December, 1985.
No. 11	Irish Statistical Bulletin – December, 1995.
No. 12	Irish Statistical Bulletin – December, 1995.