lation at the starting date is found to be larger than had been estimated, because of under-enumeration in the census, the distribution by sex and age groups is not necessarily affected, nor the estimated levels and trends of fertility and mortality. The entire projection is then readily revised by multiplying each figure with a constant, that is, the ratio of the revised to the original estimate of the population at the starting date.

370. If the actual trend of the population departs from the projection as a result of migration, where no allowance has been made for this function in the projection, an adjustment can be made by applying a model of the effects of migration. The results of the model, multiplied by a suitable constant, are simply added in. If the need for such corrections can already be foreseen at the time when the projection is made, it is well to work out such a model in advance so that corrections can be readily made as and when the need arises.

371. If the trends of fertility deviate from those assumed, revisions can also be carried out without extensive recalculation. The age groups affected are those which will be born after the base date of the forecast. If fertility is at a higher or lower level than was expected, but otherwise no change in the assumed future trend is indicated, each of the age groups of future birth cohorts may be simply multiplied with a given constant. If the trend of fertility changes in a fashion which casts doubt on the validity of the assumptions concerning the form of the future trend, that part of the forecast which pertains to survivors from future births may have to be recalculated.

372. With the passing of time, it may appear that actual trends tend to conform to one of the alternative assumptions rather than to the assumptions originally regarded as "medium", or "most likely". New alternative assumptions may then have to be devised, in accordance with the new experience.

373. The new information may be such that the projection can no longer be regarded as useful. This may happen especially if a new census or survey shows the age composition of the population at the starting date to be quite different from the estimated—though this is rather unlikely. Recalculation of the entire projection also becomes necessary if experience shows a large error in the mortality.

374. Revisions of population projections should not be made hastily, or after only a short period of new observations. Projections which are too frequently revised can only create unnecessary confusion. And observations made during a brief period may show only temporary deviations from a trend.

375. On the other hand, population projections should not remain unrevised for too long a period. In the course of time, observations will deviate more and more from any one assumption made in the original calculations, so that the unrevised forecast becomes worthless.

Appendix

THE MODEL LIFE TABLES

376. In preparing population projections for Central and South America, the United Nations staff used a system of model life tables for purposes of estimating current and future mortality levels for various sex-age groups in the different countries.[55] One shortcoming of that system of model tables was that comparative trends of life-table death rates, by sex and age (q_x) were estimated chiefly on the basis of the experience of a limited number of countries, most of them in Europe, in recent times. The system was therefore most reliable for a limited range of mortality levels—with expectations of life at birth between about 50 and 60 years—but less reliable for conditions of higher or lower mortality.

377. More recently, a systematic study of mortality patterns, by sex and age, has been completed by the United Nations staff, permitting the construction of model life tables on a firmer basis and with greater validity for extreme as well as intermediate mortality conditions. The derivation of this new scheme of tables has been explained in detail in another publication[56] and will only be briefly recapitulated here.

A. Method of derivation of model life tables

378. The tables are based on the observed close correlations—in a wide selection of countries and at different periods of time—between life-table death rates (q_x) for pairs of adjacent age groups. For each such pair of q_x-values, this correlation was established in the form of a parabolic regression equation. For instance, given the value of $q_{10\text{-}14}$, the value of $q_{15\text{-}19}$ which normally go with it can be estimated with the regression equation for this pair of values. From the value of $q_{15\text{-}19}$ so obtained, the corresponding value of $q_{20\text{-}24}$ can be found by using the regression function for that pair of values, and so forth. Thus, all the values of q_x consistent with any one q_x-value can be computed. By doing this for a sequence of forty different values of q_0, forty model life tables, ranging from very high to very low mortality, were established. The calculation was first carried out using life-table functions of both sexes combined. The q_x-values were then determined for each sex separately on the basis of observed correlations between given levels of mortality and sex differences in the life-table death rates pertaining to each age group.

B. Adaptation of the model life tables for the purpose of population projections

379. It has been explained in chapter IV how the system of model tables for different values of q_0 was

[55] The method of construction of that scheme of life tables is described in *The Population of Central America (including Mexico), 1950-1980.*

[56] United Nations, *Age and Sex Pattern of Mortality* (ST/SOA/Ser.A/Population Studies, No. 22).

adapted to represent a time sequence of tables in a typical situation of declining mortality. In view of past observations, it was assumed that, where mortality is high or moderately high, favourable conditions in the future would bring about, on the average, a gain in expectation of life of about two-and-a-half years within each five-year period of time. Accordingly, the q_x-values were interpolated for intervals corresponding to expectations of life of 20, 22.5, 25, etc., years to obtain a sequence of model life tables which would succeed each other at intervals of five years. This time sequence should merely be regarded as "normative", since in a given situation, it may well be more realistic to expect that mortality will decline either more or less rapidly.

380. Where the expectation of life is already high, however, it cannot be presumed to go on increasing indefinitely at this pace. For high expectations of life, therefore, the sequence had to be further modified with a view to a gradual approach to minimum levels of mortality. The minimum values were based on Bourgeois-Pichat's estimate of the lowest levels of mortality attainable when all avoidable deaths have been eliminated.[57] It was assumed that, in the time series of life-table death rates for any given sex-age groups, the maximum decline during a five-year period would be one-third of the difference between the present level and the minimum estimated by Bourgeois-Pichat.[58] In this manner, a slowing down in the decline of death rates was assumed where the proportion of avoidable deaths is no longer great; that is, chiefly where the expectation of life at birth approaches or exceeds 70 years.

381. A further modification was made with respect to the decline in q_0, i.e., the life-table death rate of infants, for expectations of life greater than 55 years. At this point there is a discontinuity in the observed relations between the mortality of small children and the expectation of life, which the parabolic equations cannot take fully into account.[59] According to observations and consistent with what are believed to be the attainable minimum levels of infant mortality, the decline in q_0 for expectations of life greater than 55 years should at first be more rapid, but eventually less rapid, than that implied in the model life tables. Hence, in adapting the model life tables for the purpose of population projections, different values, more in accordance with observations and theory, were substituted for q_0 where expectations of life exceed 55 years. It was assumed that from that point onward the difference between the given level of q_0 and the minimum attainable level would be narrowed by 15 per cent in the first five-year period, 20 per cent in the next period, 25 per cent in the next, 30 per cent in the next, and thereafter at the assumed maximum rate of one-third. This assumption is consistent with the modification of the time series of mortality declines for the highest expectations of life. The maximum decline in q_x-values—by one-third of all the deaths which can still be avoided—is attained at successively higher and higher ages.

382. As a result of these modifications, the expectation of life ceases to increase by exactly 2½ years every five years once the expectation of 55 years has been exceeded. The rate of gain slows down appreciably when an expectation of 70 years has been attained.

C. Computation of life-table values in the adapted scheme

383. From the q_x-values obtained by the interpolations and modifications mentioned above, the l_x-values were computed, starting with 100,000 births, by successive multiplication with $(1-q_x)$, i.e., p_x. The L_x-values were then obtained by the procedures outlined in part A of chapter III, and the P_x-values were derived from those. The q_x-values are basic to the entire scheme.

384. The derivation of m_x-values was somewhat more devious. Values of d_x were obtained by differencing the l_x-values. From these, m_x was computed from the relation

$$m_x = \frac{d_x}{L_x}.$$

Because of crudity of the formulae employed in deriving L_x from l_x, the relationship between the m_x-values so obtained and the original q_x-values deviates appreciably in some instances from that which should have been expected on the basis of the Reed-Merrell tables. This inaccuracy, however, is not a serious handicap to their utilization in the contexts considered in this manual.

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[57] Jean Bourgeois-Pichat, "La mortalité biologique de l'homme", *Population*, 1952, No. 3.

[58] This assumption appears to be justified by the observed slowing down in the decline of infant mortality in countries where infant mortality is already very low.

[59] *Age and sex pattern of mortality* (ST/SOA/Series A, Population Studies No. 22), p. 21 and figure 11.

TABLE I. AGE-SPECIFIC DEATH RATES

Mortality level (or time-

Sex and age (x) in years	*Level 0* ($^{o}e_{o}$ = *20*)	*Level 5* ($^{o}e_{o}$ = *22.5*)	*Level 10* ($^{o}e_{o}$ = *25*)	*Level 15* ($^{o}e_{o}$ = *27.5*)	*Level 20* ($^{o}e_{o}$ = *30*)	*Level 25* ($^{o}e_{o}$ = *32.5*)	*Level 30* ($^{o}e_{o}$ = *35*)	*Level 35* ($^{o}e_{o}$ = *37.5*)	*Level 40* ($^{o}e_{o}$ = *40*)	*Level 45* ($^{o}e_{o}$ = *42.5*)	*Level 50* ($^{o}e_{o}$ = *45*)	*Level 55* ($^{o}e_{o}$ = *47.5*)
MALES												
0	442.63	411.67	371.41	341.60	316.20	293.25	70.17	248.20	229.41	211.29	193.65	177.35
1–4	77.96	67.11	58.27	50.98	44.99	39.73	35.13	30.97	27.55	24.31	21.44	18.85
5–9	18.64	16.21	14.16	12.44	11.00	9.72	8.58	7.55	6.71	5.90	5.20	4.56
10–14	11.45	10.09	8.92	7.91	7.05	6.28	5.59	4.96	4.43	3.92	3.47	3.07
15–19	14.09	12.88	11.75	10.68	9.76	8.90	8.05	7.25	6.57	5.91	5.32	4.79
20–24	17.93	16.66	15.41	14.21	13.20	12.23	11.17	10.21	9.32	8.47	7.67	6.93
25–29	21.13	19.38	17.70	16.12	14.73	13.43	12.13	10.98	9.94	8.96	8.04	7.22
30–34	25.43	22.95	20.66	18.55	16.74	15.07	13.48	12.08	10.84	9.69	8.64	7.70
35–39	31.77	28.20	25.01	22.15	19.76	17.59	15.59	13.87	12.38	11.01	9.77	8.67
40–44	40.65	35.72	31.40	27.62	24.50	21.71	19.20	17.06	15.17	13.45	11.96	10.66
45–49	50.53	44.37	39.05	34.41	30.54	27.10	24.07	21.52	19.22	17.14	15.38	13.85
50–54	59.69	53.02	47.17	42.02	37.74	33.92	30.43	27.46	24.82	22.49	20.36	18.56
55–59	71.38	64.55	58.34	52.73	47.98	43.66	39.64	36.14	33.01	30.18	27.68	25.49
60–64	84.96	78.49	72.35	66.59	61.60	56.97	52.48	48.48	44.87	41.57	38.65	36.12
65–69	106.42	100.14	93.94	87.92	82.65	77.63	72.48	67.82	63.58	59.64	56.00	52.77
70–74	144.12	137.21	130.28	123.34	116.91	110.72	104.51	98.77	93.31	88.21	83.43	79.17
75–79	194.69	186.80	178.81	170.84	163.60	156.14	148.65	141.69	135.04	128.82	122.91	117.55
80–84	274.44	264.86	254.17	243.76	234.75	225.25	215.65	206.60	198.10	190.09	182.54	175.67
85+	511.36	460.12	418.80	387.42	363.99	344.56	327.70	313.93	302.48	292.58	284.10	276.97
FEMALES												
0	398.43	365.17	335.65	309.22	283.41	259.87	239.81	220.56	202.22	184.42	167.81	151.94
1–4	79.80	68.66	59.60	52.13	45.75	40.16	35.51	31.29	27.71	24.33	21.37	18.69
5–9	19.44	16.90	14.76	12.96	11.41	10.02	8.85	7.79	6.89	6.03	5.29	4.61
10–14	13.10	11.54	10.19	9.03	8.02	7.10	6.31	5.59	4.98	4.39	3.87	3.40
15–19	15.97	14.59	13.29	12.09	10.93	9.86	8.92	8.02	7.21	6.42	5.70	5.02
20–24	19.91	18.50	17.10	15.77	14.35	13.02	11.88	10.85	9.73	8.67	7.72	6.83
25–29	23.98	21.98	20.07	18.28	16.52	14.89	13.46	12.17	10.82	9.56	8.38	7.37
30–34	28.30	25.52	22.96	20.61	18.40	16.38	14.64	13.11	11.56	10.14	8.91	7.81
35–39	33.17	29.44	26.09	23.10	20.40	17.96	15.92	14.15	12.41	10.83	9.51	8.34
40–44	37.24	32.75	28.82	25.36	22.29	19.54	17.29	15.36	13.55	11.90	10.50	9.27
45–49	42.25	37.18	32.79	28.95	25.59	22.61	20.11	17.99	16.01	14.22	12.67	11.30
50–54	49.17	43.80	39.06	34.86	31.03	27.62	24.82	22.42	20.10	18.02	16.30	14.70
55–59	57.84	52.49	47.57	43.08	38.86	35.03	31.86	29.08	26.36	23.88	21.74	19.81
60–64	72.71	67.28	62.15	57.29	52.49	48.07	44.34	41.00	37.64	34.56	31.76	29.18
65–69	93.87	88.49	83.15	77.92	72.47	67.35	62.99	58.99	54.81	50.94	47.43	44.21
70–74	129.46	123.41	117.29	111.22	104.86	98.83	93.42	88.36	83.13	78.25	73.71	69.49
75–79	183.54	176.33	168.86	161.47	153.68	145.74	138.89	132.45	125.61	119.19	113.20	107.63
80–84	261.12	251.93	242.11	232.48	222.14	211.79	202.85	194.50	185.42	176.94	169.01	161.57
85+	456.14	417.09	386.93	362.32	341.38	323.96	310.57	299.33	288.89	279.84	272.19	265.53

* Equivalent values of $^{o}e_{o}$ shown in parentheses, refer to expectation of life at birth, for both sexes, in years.

($1{,}000\ m_x$) OF MODEL LIFE TABLES

reference in years) [a]

Level 60 ($^{o}e_o = 50$)	*Level 65* ($^{o}e_o = 52.5$)	*Level 70* ($^{o}e_o = 55$)	*Level 75* ($^{o}e_o = 57.6$)	*Level 80* ($^{o}e_o = 60.4$)	*Level 85* ($^{o}e_o = 63.2$)	*Level 90* ($^{o}e_o = 65.8$)	*Level 95* ($^{o}e_o = 68.2$)	*Level 100* ($^{o}e_o = 70.2$)	*Level 105* ($^{o}e_o = 71.7$)	*Level 110* ($^{o}e_o = 73.0$)	*Level 115* ($^{o}e_o = 73.9$)	*Sex and age (x) in years*
												MALES
161.16	145.05	129.59	110.85	90.18	70.10	52.51	39.13	30.35	24.55	20.73	18.18	0
16.44	14.15	12.10	10.18	8.45	6.79	5.20	3.67	2.45	1.64	1.11	0.75	1–4
3.98	3.44	2.96	2.51	2.12	1.76	1.45	1.15	0.81	0.56	0.39	0.28	5–9
2.70	2.34	2.05	1.77	1.53	1.30	1.09	0.89	0.66	0.47	0.35	0.26	10–14
4.29	3.78	3.32	2.90	2.51	2.14	1.81	1.49	1.13	0.80	0.59	0.44	15–19
6.22	5.48	4.84	4.22	3.62	3.04	2.52	2.02	1.49	1.08	0.80	0.61	20–24
6.45	5.68	4.97	4.30	3.70	3.14	2.59	2.08	1.57	1.18	0.92	0.75	25–29
6.84	6.00	5.24	4.55	3.91	3.33	2.79	2.29	1.82	1.43	1.18	1.00	30–34
7.70	6.77	5.94	5.19	4.50	3.88	3.31	2.79	2.31	1.90	1.63	1.45	35–39
9.50	8.41	7.45	6.58	5.79	5.07	4.45	3.87	3.35	2.88	2.52	2.27	40–44
12.49	11.22	9.97	9.07	8.16	7.33	6.61	5.92	5.32	4.71	4.17	3.76	45–49
16.95	15.43	14.08	12.85	11.78	10.81	9.96	9.14	8.40	7.67	6.95	6.30	50–54
23.52	21.65	20.00	18.53	17.19	15.98	14.93	13.99	13.02	12.08	11.22	10.37	55–59
33.83	31.58	29.53	27.69	26.05	24.59	23.24	21.96	20.70	19.42	18.22	17.13	60–64
49.82	46.92	44.32	42.02	39.85	37.92	36.13	34.42	32.74	31.02	29.46	28.01	65–69
75.35	71.61	68.14	65.01	62.09	59.41	56.94	54.60	52.36	50.13	48.10	46.28	70–74
112.56	107.64	103.28	99.39	95.73	92.40	89.26	86.32	83.35	80.36	77.33	74.56	75–79
169.30	162.98	157.07	151.67	146.64	141.99	137.74	133.68	129.39	126.39	122.42	118.21	80–84
270.72	264.90	259.83	255.32	251.20	247.52	244.26	241.34	238.71	236.36	234.24	232.36	.....85+
												FEMALES
136.41	121.72	107.62	91.92	74.54	57.57	42.65	31.27	23.79	18.84	15.57	13.39	0
16.19	13.87	11.65	9.80	7.92	6.14	4.55	3.09	2.06	1.38	0.93	0.63	1–4
3.99	3.41	2.90	2.42	1.97	1.56	1.18	0.85	0.60	0.42	0.29	0.21	5–9
2.96	2.55	2.17	1.82	1.49	1.18	0.91	0.67	0.50	0.36	0.26	0.20	10–14
4.38	3.79	3.27	2.77	2.30	1.86	1.45	1.10	0.84	0.60	0.44	0.33	15–19
5.97	5.19	4.46	3.76	3.13	2.54	1.99	1.49	1.11	0.80	0.60	0.47	20–24
6.45	5.58	4.80	4.06	3.38	2.73	2.19	1.70	1.29	0.97	0.76	0.62	25–29
6.80	5.89	5.09	4.34	3.64	3.00	2.47	1.97	1.56	1.23	1.00	0.85	30–34
7.28	6.31	5.48	4.70	4.00	3.37	2.84	2.35	1.95	1.60	1.38	1.22	35–39
8.15	7.15	6.29	5.49	4.78	4.14	3.58	3.06	2.65	2.31	2.04	1.87	40–44
10.06	8.95	8.00	7.11	6.33	5.62	5.02	4.45	4.00	3.62	3.28	3.02	45–49
13.22	11.91	10.78	9.74	8.80	7.94	7.20	6.51	5.98	5.51	5.15	4.83	50–54
18.05	16.48	15.05	13.71	12.53	11.45	10.45	9.52	8.87	8.33	7.92	7.62	55–59
26.79	24.70	22.82	21.04	19.41	17.89	16.58	15.33	14.47	13.78	13.10	12.59	60–64
41.19	38.47	35.91	33.46	31.26	29.21	27.41	25.71	24.47	23.39	22.33	21.29	65–69
65.38	61.59	58.10	54.80	51.80	48.96	46.46	44.08	42.31	40.53	38.68	36.89	70–74
102.30	97.39	92.63	88.03	83.82	79.85	76.31	72.96	70.52	68.24	65.40	62.47	75–79
154.48	147.96	141.94	136.17	130.92	125.92	121.48	117.21	113.98	110.99	107.61	104.01	80–84
259.56	254.36	249.76	245.57	241.69	238.20	235.22	232.54	230.61	228.97	227.41	225.98	.....85+

TABLE II. LIFE-TABLE DEATH RATES

Mortality level (or time-

Sex and age (x) in years	*Level 0* ($^{o}e_{o}$ = 20)	*Level 5* ($^{o}e_{o}$ = 22.5)	*Level 10* ($^{o}e_{o}$ = 25)	*Level 15* ($^{o}e_{o}$ = 27.5)	*Level 20* ($^{o}e_{o}$ = 30)	*Level 25* ($^{o}e_{o}$ = 32.5)	*Level 30* ($^{o}e_{o}$ = 35)	*Level 35* ($^{o}e_{o}$ = 37.5)	*Level 40* ($^{o}e_{o}$ = 40)	*Level 45* ($^{o}e_{o}$ = 42.5)	*Level 50* ($^{o}e_{o}$ = 45)	*Level 55* ($^{o}e_{o}$ = 47.5)
MALES												
0	332.31	310.55	290.49	271.93	255.59	240.38	224.65	209.25	195.73	182.39	169.09	156.53
1–4	267.98	235.27	207.67	184.21	164.43	146.69	130.86	116.31	104.16	92.50	82.07	72.52
5–9	89.06	77.89	68.40	60.33	53.53	47.42	42.01	37.06	33.00	29.09	25.65	22.55
10–14	55.68	49.22	43.61	38.78	34.66	30.93	27.57	24.47	21.89	19.42	17.22	15.24
15–19	68.08	62.41	57.05	52.03	47.65	43.52	39.45	35.60	32.34	29.14	26.28	23.68
20–24	85.81	79.96	74.20	68.61	63.91	59.35	54.34	49.76	45.52	41.46	37.63	34.07
25–29	100.33	92.40	84.74	77.49	71.05	64.96	58.89	53.45	48.50	43.81	39.40	35.44
30–34	119.56	108.54	98.22	88.66	80.35	72.62	65.19	58.61	52.79	47.33	42.27	37.76
35–39	147.14	131.73	117.68	104.93	94.14	84.24	75.03	67.03	60.05	53.58	47.67	42.45
40–44	184.52	163.96	145.60	129.18	115.45	102.96	91.58	81.81	73.06	65.05	58.06	51.94
45–49	224.27	199.69	177.89	158.44	141.87	126.88	113.54	102.09	91.67	82.19	74.04	66.96
50–54	259.66	234.09	210.97	190.11	172.43	156.31	141.39	128.48	116.84	106.46	96.89	88.69
55–59	302.86	277.92	254.60	232.95	214.20	196.83	180.32	165.73	152.50	140.30	129.43	119.81
60–64	350.36	328.05	306.35	285.41	266.90	249.36	231.93	216.20	201.75	188.28	176.23	165.63
65–69	420.21	400.41	380.42	360.40	342.45	325.04	306.80	289.97	274.30	259.50	245.62	233.12
70–74	529.66	510.83	491.26	471.32	452.34	433.58	414.31	396.07	378.29	361.39	345.17	330.47
75–79	654.67	636.83	618.02	598.55	580.59	561.54	541.86	523.16	504.82	487.20	470.10	454.28
80–84	813.99	796.15	777.25	757.58	739.73	720.64	700.45	681.17	662.40	644.34	626.70	610.36
FEMALES												
0	306.76	286.66	268.15	251.01	233.73	217.48	203.25	189.25	175.59	162.01	149.05	136.40
1–4	273.39	240.03	211.87	187.93	166.95	148.16	132.18	117.46	104.75	92.58	81.81	71.93
5–9	92.69	81.06	71.16	62.79	55.45	48.87	43.29	38.19	33.85	29.70	26.08	22.81
10–14	63.42	56.06	49.69	44.18	39.29	34.87	31.08	27.58	24.58	21.70	19.16	16.85
15–19	76.77	70.38	64.32	58.68	53.21	48.11	43.60	39.32	35.42	31.61	28.10	24.79
20–24	94.84	88.38	82.02	75.84	69.27	63.03	57.70	52.80	47.48	42.44	37.88	33.58
25–29	113.13	104.19	95.57	87.38	79.35	71.80	65.10	59.03	52.67	46.68	41.02	36.18
30–34	132.14	119.96	108.56	97.99	87.96	78.66	70.62	63.45	56.19	49.43	43.57	38.31
35–39	153.14	137.11	122.47	109.21	97.05	85.94	76.53	68.32	60.19	52.70	46.43	40.86
40–44	170.34	151.35	134.41	119.24	105.55	93.15	82.87	73.98	65.52	57.77	51.15	45.28
45–49	191.05	170.10	151.54	134.96	120.27	106.99	95.75	86.09	76.96	68.68	61.40	54.93
50–54	218.97	197.41	177.92	160.33	144.01	129.18	116.86	106.14	95.70	86.19	78.28	70.92
55–59	252.65	232.02	212.56	194.48	177.08	161.05	147.54	135.54	123.64	112.68	103.07	94.38
60–64	307.59	288.00	268.95	250.56	232.02	214.56	199.56	185.95	172.01	159.03	147.09	135 97
65–69	380.19	362.28	344.19	326.08	306.78	288.25	272.07	257.04	241.02	225.91	212.00	199.06
70–74	488.91	471.53	453.48	435.07	415.44	396.24	378.63	361.87	344.11	327.22	311.21	296.02
75–79	629.00	611.86	593.79	575.08	555.05	534.15	515.43	497.53	477.96	459.17	441.16	424.03
80–84	789.92	772.63	754.27	735.19	714.27	692.37	672.99	654.29	633.46	613.38	594.02	575.44

[a] Equivalent values of $^{o}e_{o}$ shown in parentheses, refer to expectation of life at birth, for both sexes, in years.

($1{,}000q_x$) OF MODEL LIFE TABLES

reference in years) [a]

Level 60 ($^{o}e_o = 50$)	*Level 65* ($^{o}e_o = 52.5$)	*Level 70* ($^{o}e_o = 55$)	*Level 75* ($^{o}e_o = 57.6$)	*Level 80* ($^{o}e_o = 60.4$)	*Level 85* ($^{o}e_o = 63.2$)	*Level 90* ($^{o}e_o = 65.8$)	*Level 95* ($^{o}e_o = 68.2$)	*Level 100* ($^{o}e_o = 70.2$)	*Level 105* ($^{o}e_o = 71.7$)	*Level 110* ($^{o}e_o = 73.0$)	*Level 115* ($^{o}e_o = 73.9$)	*Sex and age (x) in years*
												MALES
143.78	130.82	118.11	102.34	84.47	66.60	50.52	38.01	29.67	24.11	20.41	17.94	0
63.56	54.98	47.22	39.88	33.21	26.78	20.56	14.55	9.75	6.55	4.42	3.00	1–4
19.72	17.03	14.68	12.48	10.55	8.75	7.20	5.73	4.06	2.80	1.96	1.40	5–9
13.40	11.66	10.18	8.81	7.61	6.48	5.44	4.49	3.31	2.36	1.73	1.31	10–14
21.22	18.74	16.49	14.39	12.45	10.64	8.99	7.42	5.64	4.01	2.93	2.21	15–19
30.63	27.02	23.90	20.89	17.94	15.10	12.52	10.07	7.44	5.37	3.99	3.07	20–24
31.74	28.00	24.54	21.25	18.35	15.59	12.87	10.34	7.83	5.90	4.61	3.75	25–29
33.61	29.56	25.87	22.48	19.36	16.49	13.86	11.39	9.05	7.14	5.86	5.01	30–34
37.75	33.28	29.28	25.60	22.26	19.22	16.43	13.85	11.50	9.47	8.12	7.22	35–39
46.41	41.17	36.57	32.36	28.52	25.04	22.02	19.16	16.61	14.30	12.50	11.30	40–44
60.58	54.57	48.66	44.36	40.00	36.00	32.50	29.15	26.23	23.30	20.66	18.61	45–49
81.28	74.28	67.99	62.25	57.21	52.65	48.57	44.67	41.11	37.63	34.15	31.01	50–54
111.05	102.67	95.26	88.53	82.41	76.85	71.96	67.56	63.06	58.62	54.58	50.54	55–59
155.94	146.35	137.49	129.48	122.30	115.83	109.82	104.10	98.40	92.61	87.14	82.15	60–64
221.49	209.98	199.52	190.11	181.21	173.20	165.69	158.46	151.32	143.92	137.21	130.87	65–69
317.01	303.71	291.13	279.61	268.74	258.62	249.22	240.20	231.51	222.76	214.70	207.39	70–74
439.18	424.08	410.44	398.05	386.23	375.29	364.86	354.98	344.87	334.57	323.99	314.24	75–79
594.78	578.98	563.92	549.84	536.52	523.97	512.30	500.96	490.21	480.19	468.67	456.23	80–84
												FEMALES
123.75	111.54	99.58	85.99	70.59	55.19	41.33	30.55	23.37	18.58	15.39	13.26	0
62.64	53.92	45.50	38.41	31.17	24.24	18.03	12.27	8.22	5.52	3.72	2.52	1–4
19.73	16.88	14.39	12.03	9.82	7.77	5.89	4.23	3.01	2.08	1.46	1.05	5–9
14.68	12.65	10.81	9.05	7.40	5.86	4.53	3.36	2.49	1.79	1.32	1.01	10–14
21.65	18.78	16.22	13.74	11.43	9.24	7.25	5.48	4.17	2.99	2.20	1.67	15–19
29.42	25.59	22.06	18.63	15.54	12.61	9.89	7.44	5.51	4.01	3.01	2.35	20–24
31.75	27.51	23.73	20.09	16.74	13.55	10.88	8.47	6.41	4.83	3.78	3.08	25–29
33.45	29.01	25.11	21.44	18.04	14.91	12.25	9.81	7.79	6.12	5.00	4.26	30–34
35.73	31.08	27.03	23.23	19.81	16.69	14.11	11.68	9.70	7.99	6.85	6.09	35–39
39.94	35.11	30.94	27.06	23.62	20.48	17.76	15.21	13.19	11.49	10.17	9.29	40–44
49.06	43.80	39.20	34.93	31.17	27.71	24.78	21.99	19.79	17.94	16.28	14.99	45–49
63.98	57.83	52.50	47.53	43.06	38.91	35.37	32.01	29.47	27.15	25.41	23.85	50–54
86.36	79.12	72.54	66.29	60.76	55.65	50.91	46.47	43.37	40.78	38.84	37.38	55–59
125.54	116.32	107.95	99.95	92.57	85.61	79.59	73.84	69.81	66.61	63.41	61.01	60–64
186.71	175.46	164.76	154.38	144.98	136.09	128.27	120.77	115.32	110.49	105.77	101.05	65–69
280.98	266.86	253.73	241.01	229.29	218.09	208.12	198.52	191.33	184.00	176.35	168.88	70–74
407.31	391.61	376.08	360.75	346.50	332.80	320.43	308.53	299.75	291.47	281.04	270.15	75–79
557.17	540.05	523.83	507.96	493.16	478.85	465.91	453.25	443.51	434.43	423.99	412.71	80–84

TABLE III. SURVIVORS TO EXACT AGES

Mortality level or (time-

Sex and age (x) in years	*Level 0* ($^{o}e_{o}$ = 20)	*Level 5* ($^{o}e_{o}$ = 22.5)	*Level 10* ($^{o}e_{o}$ = 25)	*Level 15* ($^{o}e_{o}$ = 27.5)	*Level 20* ($^{o}e_{o}$ = 30)	*Level 25* ($^{o}e_{o}$ = 32.5)	*Level 30* ($^{o}e_{o}$ = 35)	*Level 35* ($^{o}e_{o}$ = 37.5)	*Level 40* ($^{o}e_{o}$ = 40)	*Level 45* ($^{o}e_{o}$ = 42.5)	*Level 50* ($^{o}e_{o}$ = 45)	*Level 55* ($^{o}e_{o}$ = 47.5)
MALES												
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1	66,769	68,545	70,951	72,807	74,441	75,962	77,535	79,075	80,427	81,761	83,091	84,347
5	48,876	52,418	56,217	59,395	62,201	64,819	67,389	69,878	72,050	74,198	76,272	78,230
10	44,523	48,335	52,372	55,812	58,871	61,745	64,558	67,288	69,672	72,040	74,316	76,466
15	42,044	45,956	50,088	53,648	56,831	59,835	62,778	65,641	68,147	70,641	73,036	75,301
20	39,182	43,088	47,230	50,857	54,123	57,231	60,301	63,304	65,943	68,583	71,117	73,518
25	35,820	39,643	43,726	47,368	50,664	53,834	57,024	60,154	62,941	65,740	68,441	71,013
30	32,226	35,980	40,021	43,697	47,064	50,337	53,666	56,939	59,888	62,860	65,744	68,496
35	28,373	32,075	36,090	39,823	43,282	46,682	50,168	53,602	56,727	59,885	62,965	65,910
40	24,198	27,850	31,843	35,644	39,207	42,750	46,404	50,009	53,321	56,676	59,963	63,112
45	19,733	23,284	27,207	31,040	34,681	38,348	42,154	45,918	49,425	52,989	56,482	59,834
50	15,307	18,634	22,367	26,122	29,761	33,482	37,368	41,230	44,894	48,634	52,300	55,828
55	11,332	14,272	17,648	21,156	24,629	28,248	32,085	35,933	39,649	43,456	47,233	50,877
60	7,900	10,306	13,155	16,228	19,353	22,688	26,299	29,978	33,603	37,359	41,120	44,781
65	5,132	6,925	9,125	11,596	14,188	17,031	20,199	23,497	26,824	30,325	33,873	37,364
70	2,975	4,152	5,654	7,417	9,329	11,495	14,002	16,684	19,466	22,456	25,553	28,654
75	1,399	2,031	2,876	3,921	5,109	6,511	8,201	10,076	12,102	14,341	16,733	19,185
80	483	738	1,099	1,574	2,143	2,855	3,757	4,805	5,993	7,354	8,867	10,470
85	90	150	245	382	558	798	1,125	1,532	2,023	2,616	3,310	4,080
FEMALES												
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1	69,324	71,334	73,185	74,899	76,627	78,252	79,675	81,075	82,441	83,799	85,095	86,360
5	50,372	54,212	57,679	60,823	63,834	66,658	69,144	71,552	73,805	76,041	78,133	80,148
10	45,703	49,818	53,575	57,004	60,294	63,400	66,151	68,819	71,307	73,783	76,095	78,320
15	42,805	47,025	50,913	54,486	57,925	61,189	64,095	66,921	69,554	72,182	74,637	77,000
20	39,519	43,715	47,638	51,289	54,843	58,245	61,300	64,290	67,090	69,900	72,540	75,091
25	35,771	39,851	43,731	47,399	51,044	54,574	57,763	60,895	63,905	66,933	69,792	72,569
30	31,724	35,699	39,552	43,257	46,994	50,656	54,003	57,300	60,539	63,809	66,929	69,943
35	27,532	31,417	35,258	39,018	42,860	46,671	50,189	53,664	57,137	60,655	64,013	67,263
40	23,316	27,109	30,940	34,757	38,700	42,660	46,348	49,998	53,698	57,458	61,041	64,515
45	19,344	23,006	26,781	30,613	34,615	38,686	42,507	46,299	50,180	54,139	57,919	61,594
50	15,648	19,093	22,723	26,481	30,452	34,547	38,437	42,313	46,318	50,421	54,363	58,211
55	12,222	15,324	18,680	22,235	26,067	30,084	33,945	37,822	41,885	46,075	50,107	54,083
60	9,134	11,769	14,709	17,911	21,451	25,239	28,937	32,696	36,706	40,883	44,942	48,979
65	6,324	8,380	10,753	13,423	16,474	19,824	23,162	26,616	30,392	34,381	38,331	42,319
70	3,920	5,344	7,052	9,046	11,420	14,110	16,860	19,775	23,067	26,614	30,205	33,895
75	2,003	2,824	3,854	5,110	6,676	8,519	10,476	12,619	15,129	17,905	20,805	23,861
80	743	1,096	1,566	2,171	2,970	3,969	5,076	6,341	7,898	9,684	11,627	13,743
85	156	249	385	575	849	1,221	1,660	2,192	2,895	3,744	4,720	5,835

[a] Equivalent values of $^{o}e_{o}$ shown in parentheses, refer to expectation of life at birth, for both sexes, in years.

(l_x) OF MODEL LIFE TABLES

reference in years) [a]

Level 60 ($^oe_0 = 50$)	*Level 65* ($^oe_0 = 52.5$)	*Level 70* ($^oe_0 = 55$)	*Level 75* ($^oe_0 = 57.6$)	*Level 80* ($^oe_0 = 60.4$)	*Level 85* ($^oe_0 = 63.2$)	*Level 90* ($^oe_0 = 65.8$)	*Level 95* ($^oe_0 = 68.2$)	*Level 100* ($^oe_0 = 70.2$)	*Level 105* ($^oe_0 = 71.7$)	*Level 110* ($^oe_0 = 73.0$)	*Level 115* ($^oe_0 = 73.9$)	*Sex and age (x) in years*
												MALES
100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0
85,622	86,918	88,189	89,766	91,553	93,340	94,948	96,199	97,033	97,589	97,959	98,206	1
80,180	82,139	84,025	86,186	88,513	90,840	92,996	94,799	96,087	96,950	97,526	97,911	5
78,599	80,740	82,792	85,110	87,579	90,045	92,326	94,256	95,697	96,679	97,335	97,774	10
77,546	79,799	81,949	84,360	86,913	89,462	91,824	93,838	95,380	96,451	97,167	97,646	15
75,900	78,304	80,598	83,146	85,831	88,510	90,999	93,142	94,842	96,064	96,882	97,430	20
73,575	76,188	78,672	81,409	84,291	87,173	89,860	92,204	94,136	95,548	96,495	97,131	25
71,240	74,055	76,741	79,679	82,744	85,814	88,704	91,251	93,399	94,984	96,050	96,767	30
68,846	71,866	74,756	77,888	81,142	84,399	87,475	90,212	92,554	94,306	95,487	96,282	35
66,247	69,474	72,567	75,894	79,336	82,777	86,038	88,963	91,490	93,413	94,712	95,587	40
63,172	66,614	69,913	73,438	77,073	80,704	84,143	87,258	89,970	92,077	93,528	94,507	45
59,345	62,979	66,511	70,180	73,990	77,799	81,408	84,714	87,610	89,932	91,596	92,748	50
54,521	58,301	61,989	65,811	69,757	73,703	77,454	80,930	84,008	86,548	88,468	89,872	55
48,466	52,315	56,084	59,985	64,008	68,039	71,880	75,462	78,710	81,475	83,639	85,330	60
40,908	44,659	48,373	52,218	56,180	60,158	63,986	67,606	70,965	73,930	76,351	78,320	65
31,847	35,282	38,722	42,291	46,000	49,739	53,384	56,893	60,227	63,290	65,875	68,070	70
21,751	24,567	27,449	30,466	33,638	36,875	40,080	43,227	46,284	49,192	51,732	53,953	75
12,198	14,149	16,183	18,339	20,646	23,036	25,456	27,882	30,322	32,734	34,971	36,999	80
4,943	5,957	7,057	8,255	9,569	10,966	12,415	13,914	15,458	17,015	18,581	20,119	85
												FEMALES
100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0
87,625	88,846	90,042	91,401	92,941	94,481	95,867	96,945	97,663	98,142	98,461	98,674	1
82,136	84,055	85,945	87,890	90,044	92,191	94,139	95,755	96,860	97,600	98,095	98,425	5
80,515	82,636	84,708	86,833	89,160	91,475	93,585	95,350	96,568	97,397	97,952	98,322	10
79,333	81,591	83,792	86,047	88,500	90,939	93,161	95,030	96,328	97,223	97,823	98,223	15
77,615	80,059	82,433	84,865	87,488	90,099	92,486	94,509	95,926	96,932	97,608	98,059	20
75,332	78,010	80,615	83,284	86,128	88,963	91,571	93,806	95,397	96,543	97,314	97,829	25
72,940	75,864	78,702	81,611	84,686	87,758	90,575	93,011	94,786	96,077	96,946	97,528	30
70,500	73,663	76,726	79,861	83,158	86,450	89,465	92,099	94,048	95,489	96,461	97,113	35
67,981	71,374	74,652	78,006	81,511	85,007	88,203	91,023	93,136	94,726	95,800	96,522	40
65,266	68,868	72,342	75,895	79,586	83,266	86,637	89,639	91,908	93,638	94,826	95,625	45
62,064	65,852	69,506	73,244	77,105	80,959	84,490	87,668	90,089	91,958	93,282	94,192	50
58,093	62,044	65,857	69,763	73,785	77,809	81,502	84,862	87,434	89,461	90,912	91,946	55
53,076	57,135	61,080	65,138	69,302	73,479	77,353	80,918	83,642	85,813	87,381	88,509	60
46,413	50,489	54,486	58,627	62,887	67,188	71,196	74,943	77,803	80,097	81,840	83,109	65
37,747	41,630	45,509	49,576	53,770	58,044	62,064	65,892	68,831	71,247	73,184	74,711	70
27,141	30,521	33,962	37,628	41,441	45,385	49,147	52,811	55,662	58,138	60,278	62,094	75
16,086	18,569	21,190	24,054	27,082	30,281	33,399	36,517	38,977	41,193	43,337	45,319	80
7,123	8,541	10,090	11,836	13,726	15,781	17,838	19,966	21,690	23,298	24,963	26,615	85

TABLE IV. SURVIVORS WITHIN AGE

Mortality level (or time-

Sex and age (x) in years	*Level 0* ($^{o}e_0 = 20$)	*Level 5* ($^{o}e_0 = 22.5$)	*Level 10* ($^{o}e_0 = 25$)	*Level 15* ($^{o}e_0 = 27.5$)	*Level 20* ($^{o}e_0 = 30$)	*Level 25* ($^{o}e_0 = 32.5$)	*Level 30* ($^{o}e_0 = 35$)	*Level 35* ($^{o}e_0 = 37.5$)	*Level 40* ($^{o}e_0 = 40$)	*Level 45* ($^{o}e_0 = 42.5$)	*Level 50* ($^{o}e_0 = 45$)	*Level 55* ($^{o}e_0 = 47.5$)
MALES												
T_0	1,980,306	2,214,814	2,475,323	2,722,611	2,957,495	3,194,138	3,441,523	3,689,987	3,924,285	4,165,152	4,404,679	4,637,355
0–4.....	304,577	316,722	331,076	342,668	352,891	362,419	371,985	381,293	389,437	397,482	405,362	412,803
5–9.....	233,498	251,882	271,472	288,018	302,680	316,410	329,868	342,915	354,305	365,595	376,470	386,740
10–14.....	216,418	235,728	256,150	273,650	289,255	303,950	318,340	332,322	344,548	356,702	368,380	379,418
15–19.....	203,065	222,610	243,295	261,262	277,385	292,665	307,698	322,362	335,225	348,060	360,382	372,048
20–24.....	187,505	206,828	227,390	245,562	261,968	277,662	293,312	308,645	322,210	335,808	348,895	361,328
25–29.....	170,115	189,058	209,368	227,662	244,320	260,428	276,725	292,732	307,072	321,500	335,462	348,772
30–34.....	151,498	170,138	190,278	208,800	225,865	242,548	259,585	276,352	291,538	306,862	321,772	336,015
35–39.....	131,428	149,812	169,832	188,668	206,222	223,580	241,430	259,028	275,120	291,402	307,320	322,555
40–44.....	109,828	127,835	147,625	166,710	184,720	202,745	221,395	239,818	256,865	274,162	291,112	307,365
45–49.....	87,600	104,795	123,935	142,905	161,105	179,575	198,805	217,870	235,798	254,058	271,955	289,155
50–54.....	66,598	82,265	100,038	118,195	135,975	154,325	173,632	192,908	211,358	230,225	248,832	266,762
55–59.....	48,080	61,445	77,008	93,460	109,955	127,340	145,960	164,778	183,130	202,038	220,882	239,145
60–64.....	32,580	43,078	55,700	69,560	83,852	99,298	116,245	133,688	151,068	169,210	187,482	205,362
65–69.....	20,268	27,692	36,948	47,532	58,792	71,315	85,502	100,452	115,725	131,952	148,565	165,045
70–74.....	10,935	15,458	21,325	28,345	36,095	45,015	55,508	66,900	78,920	91,992	105,715	119,598
75–79.....	4,705	6,922	9,938	13,738	18,130	23,415	29,895	37,202	45,238	54,238	64,000	74,138
80–84.....	1,432	2,220	3,360	4,890	6,752	9,132	12,205	15,842	20,040	24,925	30,442	36,375
85+.....	176	326	585	986	1,533	2,316	3,433	4,880	6,688	8,941	11,651	14,731
FEMALES												
T_0	2,019,694	2,271,979	2,524,846	2,777,294	3,040,235	3,307,683	3,559,943	3,813,632	4,074,257	4,343,703	4,605,783	4,866,027
0–4.....	314,490	327,880	340,066	351,211	362,113	372,350	381,341	390,108	398,459	406,753	414,581	422,165
5–9.....	240,188	260,075	278,135	294,568	310,320	325,145	338,238	350,928	362,780	374,560	385,570	396,170
10–14.....	221,270	242,108	261,220	278,725	295,548	311,472	325,615	339,350	352,152	364,912	376,830	388,300
15–19.....	205,810	226,850	246,378	264,438	281,920	298,585	313,488	328,028	341,610	355,205	367,942	380,228
20–24.....	188,225	208,915	228,422	246,720	264,718	282,048	297,658	312,962	327,488	342,082	355,830	369,150
25–29.....	168,738	188,875	208,208	226,640	245,095	263,075	279,415	295,488	311,110	326,855	341,802	356,280
30–34.....	148,140	167,790	187,025	205,688	224,635	243,318	260,480	277,410	294,190	311,160	327,355	343,015
35–39.....	127,120	146,315	165,495	184,438	203,900	223,328	241,342	259,155	277,088	295,282	312,635	329,445
40–44.....	106,650	125,288	144,302	163,425	183,288	203,365	222,138	240,742	259,695	278,992	297,400	315,272
45–49.....	87,480	105,248	123,760	142,735	162,668	183,082	202,360	221,530	241,245	261,400	280,705	299,512
50–54.....	69,675	86,042	103,508	121,790	141,298	161,578	180,955	200,338	220,508	241,240	261,175	280,735
55–59.....	53,390	67,732	83,472	100,365	118,795	138,308	157,205	176,295	196,478	217,395	237,622	257,655
60–64.....	38,645	50,372	63,655	78,335	94,812	112,658	130,248	148,280	167,745	188,160	208,182	228,245
65–69.....	25,610	34,310	44,512	56,172	69,735	84,835	100,055	115,978	133,648	152,488	171,340	190,535
70–74.....	14,808	20,420	27,265	35,390	45,240	56,572	68,340	80,985	95,490	111,298	127,525	144,390
75–79.....	6,865	9,800	13,550	18,202	24,115	31,220	38,880	47,400	57,568	68,972	81,080	94,010
80–84.....	2,248	3,362	4,878	6,865	9,548	12,975	16,840	21,332	26,982	33,570	40,868	48,945
85+.....	342	597	995	1,587	2,487	3,769	5,345	7,323	10,021	13,379	17,341	21,975

[a] Equivalent values of $^{o}e_0$ shown in parentheses, refer to expectation of life at birth, for both sexes, in years.

GROUPS (L_x) OF MODEL LIFE TABLES

reference in years) [a]

Level 60 ($^oe_o = 50$)	*Level 65* ($^oe_o = 52.5$)	*Level 70* ($^oe_o = 55$)	*Level 75* ($^oe_o = 57.6$)	*Level 80* ($^oe_o = 60.4$)	*Level 85* ($^oe_o = 63.2$)	*Level 90* ($^oe_o = 65.8$)	*Level 95* ($^oe_o = 68.2$)	*Level 100* ($^oe_o = 70.2$)	*Level 105* ($^oe_o = 71.7$)	*Level 110* ($^oe_o = 73.0$)	*Level 115* ($^oe_o = 73.9$)	*Sex and age (x) in years*
												MALES
4,872,148	5,117,013	5,356,512	5,613,376	5,882,432	6,153,098	6,411,344	6,647,631	6,855,509	7,027,221	7,160,427	7,264,597	..... To
420,276	427,825	435,153	443,871	453,493	463,115	471,904	479,005	483,920	487,206	489,396	490,859	 0–4
396,948	407,198	417,042	428,240	440,230	452,212	463,305	472,638	479,460	484,072	487,152	489,212	 5–9
390,362	401,348	411,852	423,675	436,230	448,768	460,375	470,235	477,692	482,825	486,255	488,550	 10–14
383,615	395,258	406,368	418,765	431,860	444,930	457,058	467,450	475,555	481,288	485,122	487,690	 15–19
373,688	386,230	398,175	411,388	425,305	439,208	452,148	463,365	472,445	479,030	483,442	486,402	 20–24
362,038	375,608	388,532	402,720	417,588	432,468	446,410	458,638	468,838	476,330	481,362	484,745	 25–29
350,215	364,802	378,742	393,918	409,715	425,532	440,448	453,658	464,882	473,225	478,842	482,622	 30–34
337,732	353,350	368,308	384,455	401,195	417,940	433,782	447,938	460,110	469,298	475,498	479,672	 35–39
323,548	340,220	356,200	373,330	391,022	408,702	425,452	440,552	453,650	463,725	470,600	475,235	 40–44
306,292	323,982	341,060	359,045	377,658	396,258	413,878	429,930	443,950	455,022	462,810	468,138	 45–49
284,665	303,200	321,250	339,978	359,368	378,755	397,155	414,110	429,045	441,200	450,160	456,550	 50–54
257,468	276,540	295,182	314,490	334,412	354,355	373,335	390,980	406,795	420,058	430,268	438,005	 55–59
223,435	242,435	261,142	280,508	300,470	320,492	339,665	357,670	374,188	388,512	399,975	409,125	 60–64
181,888	199,852	217,738	236,272	255,450	274,742	293,425	311,248	327,980	343,050	355,565	365,975	 65–69
133,995	149,622	165,428	181,892	199,095	216,535	233,660	250,300	266,278	281,205	294,018	305,058	 70–74
84,872	96,790	109,080	122,012	135,710	149,778	163,840	177,772	191,515	204,815	216,758	227,380	 75–79
42,852	50,265	58,100	66,485	75,538	85,005	94,678	104,490	114,450	124,372	133,880	142,795	 80–84
18,259	22,488	27,160	32,332	38,093	44,303	50,826	57,652	64,756	71,988	79,324	86,584	..... 85+
												FEMALES
5,130,792	5,393,553	5,652,382	5,921,457	6,204,598	6,490,665	6,756,688	6,998,544	7,180,317	7,323,693	7,434,057	7,519,058	..... To
429,692	436,957	444,096	451,782	460,386	468,976	476,739	482,990	487,213	490,036	491,921	493,179	 0–4
406,628	416,728	426,632	436,808	448,010	459,165	469,310	477,762	483,570	487,492	490,118	491,868	 5–9
399,620	410,568	421,250	432,200	444,150	456,035	466,865	475,950	482,240	486,550	489,438	491,362	 10–14
392,370	404,125	415,562	427,280	439,970	452,595	464,118	473,848	480,635	485,388	488,578	490,705	 15–19
382,368	395,172	407,620	420,372	434,040	447,655	460,142	470,788	478,308	483,688	487,305	489,720	 20–24
370,680	384,685	398,292	412,238	427,035	441,802	455,365	467,042	475,458	481,550	485,650	488,392	 25–29
358,600	373,818	388,570	403,680	419,610	435,520	450,100	462,775	472,085	478,915	483,518	486,602	 30–34
346,202	362,592	378,445	394,668	411,672	428,642	444,170	457,805	467,960	475,538	480,652	484,088	 35–39
333,118	350,605	367,485	384,752	402,742	420,682	437,100	451,655	462,610	470,910	476,565	480,368	 40–44
318,325	336,800	354,620	372,848	391,728	410,562	427,818	443,268	454,992	463,990	470,270	474,542	 45–49
300,392	319,740	338,408	357,518	377,275	396,920	414,980	431,325	443,808	453,548	460,485	465,345	 50–54
277,922	297,948	317,342	337,252	357,718	378,220	397,138	414,450	427,690	438,185	445,732	451,138	 55–59
248,722	269,060	288,915	309,412	330,472	351,668	371,372	389,652	403,612	414,775	423,052	429,045	 60–64
210,400	230,298	249,988	270,508	291,642	313,080	333,150	352,088	366,585	378,360	387,560	394,550	 65–69
162,220	180,378	198,678	218,010	238,028	258,572	278,028	296,758	311,232	323,462	333,655	342,012	 70–74
108,068	122,725	137,880	154,205	171,308	189,165	206,365	223,320	236,598	248,328	259,038	268,532	 75–79
58,022	67,775	78,200	89,725	102,020	115,155	128,092	141,208	151,668	161,228	170,750	179,835	 80–84
27,443	33,579	40,399	48,199	56,792	66,251	75,836	85,860	94,053	101,750	109,770	117,775	..... 85+

TABLE V. SURVIVAL RATIOS (P_x)

Mortality level (or time

Sex and age (x) in years	Level 0 ($^{e}e_0 = 20$)	Level 5 ($^{e}e_0 = 22.5$)	Level 10 ($^{e}e_0 = 25$)	Level 15 ($^{e}e_0 = 27.5$)	Level 20 ($^{e}e_0 = 30$)	Level 25 ($^{e}e_0 = 32.5$)	Level 30 ($^{e}e_0 = 35$)	Level 35 ($^{e}e_0 = 37.5$)	Level 40 ($^{e}e_0 = 40$)	Level 45 ($^{e}e_0 = 42.5$)	Level 50 ($^{e}e_0 = 45$)	Level 55 ($^{e}e_0 = 47.5$)
MALES												
(Births)....	(0.6092)	(0.6334)	(0.6622)	(0.6853)	(0.7058)	(0.7248)	(0.7440)	(0.7626)	(0.7789)	(0.7950)	(0.8107)	(0.8256)
0–4.....	0.7666	0.7953	0.8200	0.8405	0.8577	0.8731	0.8868	0.8993	0.9098	0.9198	0.9287	0.9369
5–9.....	0.9269	0.9359	0.9436	0.9501	0.9556	0.9606	0.9651	0.9691	0.9725	0.9757	0.9785	0.9811
10–14.....	0.9383	0.9444	0.9498	0.9547	0.9590	0.9629	0.9666	0.9700	0.9729	0.9758	0.9783	0.9806
15–19.....	0.9234	0.9291	0.9346	0.9399	0.9444	0.9487	0.9532	0.9574	0.9612	0.9648	0.9681	0.9712
20–24.....	0.9073	0.9141	0.9207	0.9271	0.9326	0.9379	0.9434	0.9484	0.9530	0.9574	0.9615	0.9653
25–29.....	0.8906	0.8999	0.9088	0.9171	0.9245	0.9313	0.9381	0.9440	0.9494	0.9545	0.9592	0.9634
30–34.....	0.8675	0.8805	0.8925	0.9036	0.9130	0.9218	0.9301	0.9373	0.9437	0.9496	0.9551	0.9599
35–39.....	0.8357	0.8533	0.8692	0.8836	0.8957	0.9068	0.9170	0.9258	0.9336	0.9408	0.9473	0.9529
40–44.....	0.7976	0.8198	0.8395	0.8572	0.8722	0.8857	0.8980	0.9085	0.9180	0.9267	0.9342	0.9408
45–49.....	0.7603	0.7850	0.8072	0.8271	0.8440	0.8594	0.8734	0.8854	0.8964	0.9062	0.9150	0.9226
50–54.....	0.7219	0.7469	0.7698	0.7907	0.8086	0.8251	0.8406	0.8542	0.8664	0.8776	0.8877	0.8965
55–59.....	0.6776	0.7011	0.7233	0.7443	0.7626	0.7798	0.7964	0.8113	0.8249	0.8375	0.8488	0.8587
60–64.....	0.6221	0.6428	0.6633	0.6833	0.7011	0.7182	0.7355	0.7514	0.7660	0.7798	0.7924	0.8037
65–69.....	0.5395	0.5582	0.5772	0.5963	0.6139	0.6312	0.6492	0.6660	0.6820	0.6972	0.7116	0.7246
70–74.....	0.4303	0.4478	0.4660	0.4847	0.5023	0.5202	0.5386	0.5561	0.5732	0.5896	0.6054	0.6199
75–79.....	0.3044	0.3207	0.3381	0.3559	0.3724	0.3900	0.4083	0.4258	0.4430	0.4595	0.4757	0.4906
(80+).....	(0.1095)	(0.1280)	(0.1483)	(0.1678)	(0.1850)	(0.2023)	(0.2195)	(0.2355)	(0.2502)	(0.2640)	(0.2768)	(0.2882)
FEMALES												
(Births)....	(0.6290)	(0.6558)	(0.6801)	(0.7024)	(0.7242)	(0.7447)	(0.7627)	(0.7802)	(0.7969)	(0.8135)	(0.8292)	(0.8443)
0–4.....	0.7637	0.7932	0.8179	0.8387	0.8570	0.8732	0.8870	0.8996	0.9105	0.9209	0.9300	0.9384
5–9.....	0.9212	0.9309	0.9392	0.9462	0.9524	0.9579	0.9627	0.9670	0.9707	0.9742	0.9773	0.9801
10–14.....	0.9301	0.9370	0.9432	0.9487	0.9539	0.9586	0.9628	0.9666	0.9701	0.9734	0.9764	0.9792
15–19.....	0.9146	0.9209	0.9271	0.9330	0.9390	0.9446	0.9495	0.9541	0.9587	0.9631	0.9671	0.9709
20–24.....	0.8965	0.9041	0.9115	0.9186	0.9259	0.9327	0.9387	0.9442	0.9500	0.9555	0.9606	0.9651
25–29.....	0.8779	0.8884	0.8983	0.9076	0.9165	0.9249	0.9322	0.9388	0.9456	0.9520	0.9577	0.9628
30–34.....	0.8581	0.8720	0.8849	0.8967	0.9077	0.9178	0.9265	0.9342	0.9419	0.9490	0.9550	0.9604
35–39.....	0.8390	0.8563	0.8719	0.8861	0.8989	0.9106	0.9204	0.9289	0.9372	0.9448	0.9513	0.9570
40–44.....	0.8203	0.8400	0.8576	0.8734	0.8875	0.9003	0.9110	0.9202	0.9290	0.9369	0.9439	0.9500
45–49.....	0.7965	0.8175	0.8364	0.8533	0.8686	0.8825	0.8942	0.9043	0.9140	0.9229	0.9304	0.9373
50–54.....	0.7663	0.7872	0.8064	0.8241	0.8407	0.8560	0.8688	0.8800	0.8910	0.9012	0.9098	0.9178
55–59.....	0.7238	0.7437	0.7626	0.7805	0.7981	0.8145	0.8285	0.8411	0.8538	0.8655	0.8761	0.8859
60–64.....	0.6627	0.6811	0.6993	0.7171	0.7355	0.7530	0.7682	0.7822	0.7967	0.8104	0.8230	0.8348
65–69.....	0.5782	0.5952	0.6125	0.6300	0.6487	0.6668	0.6830	0.6983	0.7145	0.7299	0.7443	0.7578
70–74.....	0.4636	0.4799	0.4970	0.5143	0.5330	0.5519	0.5689	0.5853	0.6029	0.6197	0.6358	0.6511
75–79.....	0.3275	0.3431	0.3600	0.3772	0.3959	0.4156	0.4331	0.4500	0.4687	0.4867	0.5040	0.5206
(80+).....	(0.1320)	(0.1508)	(0.1694)	(0.1878)	(0.2066)	(0.2251)	(0.2409)	(0.2556)	(0.2708)	(0.2850)	(0.2979)	(0.3099)

[a] Equivalent values of $^{e}e_0$ shown in parentheses refer to expectation of life at birth, for both sexes, in years.

OF MODEL LIFE TABLES

reference in years) [a]

Level 60 ($^{e}e_0 = 50$)	*Level 65* ($^{e}e_0 = 52.5$)	*Level 70* ($^{e}e_0 = 55$)	*Level 75* ($^{e}e_0 = 57.6$)	*Level 80* ($^{e}e_0 = 60.4$)	*Level 85* ($^{e}e_0 = 63.2$)	*Level 90* ($^{e}e_0 = 65.8$)	*Level 95* ($^{e}e_0 = 68.2$)	*Level 100* ($^{e}e_0 = 70.2$)	*Level 105* ($^{e}e_0 = 71.7$)	*Level 110* ($^{e}e_0 = 73.0$)	*Level 115* ($^{e}e_0 = 73.9$)	*Sex and age (x) in years*
												MALES
(0.8406)	(0.8557)	(0.8703)	(0.8877)	(0.9070)	(0.9262)	(0.9438)	(0.9580)	(0.9678)	(0.9744)	(0.9788)	(0.9817)	....(Births)
0.9445	0.9518	0.9584	0.9648	0.9708	0.9765	0.9818	0.9867	0.9908	0.9936	0.9954	0.9966	0–4
0.9834	0.9856	0.9876	0.9893	0.9909	0.9924	0.9937	0.9949	0.9963	0.9974	0.9982	0.9986	5–9
0.9827	0.9848	0.9867	0.9884	0.9900	0.9914	0.9928	0.9941	0.9955	0.9968	0.9977	0.9982	10–14
0.9741	0.9772	0.9798	0.9824	0.9848	0.9871	0.9893	0.9913	0.9935	0.9953	0.9965	0.9974	15–19
0.9688	0.9725	0.9758	0.9789	0.9819	0.9847	0.9873	0.9898	0.9924	0.9944	0.9957	0.9966	20–24
0.9673	0.9712	0.9748	0.9781	0.9811	0.9840	0.9866	0.9891	0.9916	0.9935	0.9948	0.9956	25–29
0.9644	0.9686	0.9725	0.9760	0.9792	0.9822	0.9849	0.9874	0.9897	0.9917	0.9930	0.9939	30–34
0.9580	0.9628	0.9671	0.9711	0.9746	0.9779	0.9808	0.9835	0.9860	0.9881	0.9897	0.9907	35–39
0.9467	0.9523	0.9575	0.9617	0.9658	0.9696	0.9728	0.9759	0.9786	0.9812	0.9835	0.9851	40–44
0.9294	0.9359	0.9419	0.9469	0.9516	0.9558	0.9596	0.9632	0.9664	0.9696	0.9727	0.9752	45–49
0.9045	0.9121	0.9189	0.9250	0.9306	0.9356	0.9400	0.9441	0.9481	0.9521	0.9558	0.9594	50–54
0.8678	0.8767	0.8847	0.8919	0.8985	0.9044	0.9098	0.9148	0.9198	0.9249	0.9296	0.9341	55–59
0.8141	0.8244	0.8338	0.8423	0.8502	0.8573	0.8639	0.8702	0.8765	0.8830	0.8890	0.8945	60–64
0.7367	0.7487	0.7598	0.7698	0.7794	0.7881	0.7963	0.8042	0.8119	0.8197	0.8269	0.8335	65–69
0.6334	0.6469	0.6594	0.6708	0.6816	0.6917	0.7012	0.7102	0.7192	0.7283	0.7372	0.7454	70–74
0.5049	0.5193	0.5326	0.5449	0.5566	0.5675	0.5779	0.5878	0.5976	0.6072	0.6176	0.6280	75–79
(0.2988)	(0.3091)	(0.3186)	(0.3272)	(0.3352)	(0.3426)	(0.3493)	(0.3556)	(0.3613)	(0.3666)	(0.3721)	(0.3775)	.....(80+)
												FEMALES
(0.8594)	(0.8739)	(0.8882)	(0.9036)	(0.9208)	(0.9380)	(0.9535)	(0.9660)	(0.9744)	(0.9801)	(0.9838)	(0.9864)	....(Births)
0.9463	0.9537	0.9607	0.9669	0.9731	0.9791	0.9844	0.9892	0.9925	0.9948	0.9963	0.9973	0–4
0.9828	0.9852	0.9874	0.9895	0.9914	0.9932	0.9948	0.9962	0.9972	0.9981	0.9986	0.9990	5–9
0.9819	0.9843	0.9865	0.9886	0.9906	0.9925	0.9941	0.9956	0.9967	0.9976	0.9982	0.9987	10–14
0.9745	0.9778	0.9809	0.9838	0.9865	0.9891	0.9914	0.9935	0.9952	0.9965	0.9974	0.9980	15–19
0.9694	0.9735	0.9771	0.9807	0.9839	0.9869	0.9896	0.9920	0.9940	0.9956	0.9966	0.9973	20–24
0.9674	0.9718	0.9756	0.9792	0.9826	0.9858	0.9884	0.9909	0.9929	0.9945	0.9956	0.9963	25–29
0.9654	0.9700	0.9739	0.9777	0.9811	0.9842	0.9868	0.9893	0.9913	0.9929	0.9941	0.9948	30–34
0.9622	0.9669	0.9710	0.9749	0.9783	0.9814	0.9841	0.9866	0.9886	0.9903	0.9915	0.9923	35–39
0.9556	0.9606	0.9650	0.9691	0.9727	0.9759	0.9788	0.9814	0.9835	0.9853	0.9868	0.9879	40–44
0.9437	0.9493	0.9543	0.9589	0.9631	0.9668	0.9700	0.9731	0.9754	0.9775	0.9792	0.9806	45–49
0.9252	0.9318	0.9377	0.9433	0.9482	0.9529	0.9570	0.9609	0.9637	0.9661	0.9680	0.9695	50–54
0.8949	0.9030	0.9104	0.9175	0.9238	0.9298	0.9351	0.9402	0.9437	0.9466	0.9491	0.9510	55–59
0.8459	0.8559	0.8653	0.8743	0.8825	0.8903	0.8971	0.9036	0.9083	0.9122	0.9161	0.9196	60–64
0.7710	0.7832	0.7948	0.8059	0.8162	0.8259	0.8345	0.8429	0.8490	0.8549	0.8609	0.8668	65–69
0.6662	0.6804	0.6940	0.7073	0.7197	0.7316	0.7422	0.7525	0.7602	0.7677	0.7764	0.7852	70–74
0.5369	0.5523	0.5672	0.5819	0.5955	0.6088	0.6207	0.6323	0.6410	0.6493	0.6592	0.6697	75–79
(0.3211)	(0.3313)	(0.3406)	(0.3495)	(0.3576)	(0.3652)	(0.3719)	(0.3781)	(0.3828)	(0.3869)	(0.3913)	(0.3957)	.....(80+)