

Complete Life Tables for Korea in 1970's

1. Introduction

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1. Introduction

Life table shows the expectation of life at birth (e_0^0), i.e., the average number of years that will be lived by a new born child under the assumption that there will be no mortality change. At the same time we can see the mortality level which is an important index to compare with it of other countries.

This life table has been used widely not only for demographic analysis but also for calculation of insurance rate, research on social, health etc.

A number of life tables have been constructed for Korean population for various time periods by various researchers, and estimates of life expectancy are available from 1906 to 1978—1979.¹⁾ Unfortunately all constructed life tables are abridged and at various times complete life tables are required for demographic analysis. In such cases, abridged life tables are to converted into complete life tables by individual workers depending on the nature of their work. So, this study has been attempted to convert abridged life tables in 1970 and 1978-79 into complete life tables.

2. Methodology

The "Six-term minimized fifth difference 'ordinary' interpolation formula"²⁾ has

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1) U.N. ESCAP, Country monograph series no. 2, *Population of the Republic of Korea*, 1975, p. 176.

Economic Planning Board, Bureau of the Census, *Life Table for Korea: 1978—79*, 1980.

2) Henry S. Shryock and Jacob S. Siegel, *The Methods and Materials of Demography*, U.S. Department of Commerce, Bureau of the Census, 1971, p. 699.

been used to estimate the intermediate values of l_x (no. survivors at exact age x). Using $l_5, l_{10}, \dots, l_{80}$ the intermediate values $l_6, l_7, l_8, l_9, l_{11}, \dots, l_{79}$ have been estimated. Values of $l_1, l_2, l_3,$ and l_4 have been borrowed from the model life tables³⁾ (west) corresponding to each level of mortality and interpolated. From the l_x values, other functions such as Q_x, L_x, S_x, T_x and e_x^0 have been estimated and the procedure for getting them are explained later. The interpolation coefficients based on the Beers "ordinary" formula are as follows.

Interpolation Coefficients

(1) for the first two age groups

| | l_5 | l_{10} | l_{15} | l_{20} | l_{25} | l_{30} |
|----------|--------|----------|----------|----------|----------|----------|
| l_6 | .6667 | .4969 | -.1426 | -.1006 | .1079 | -.0283 |
| l_7 | .4072 | .8344 | -.2336 | -.0976 | .1224 | -.0328 |
| l_8 | .2148 | 1.0204 | -.2456 | -.0536 | .0884 | -.0244 |
| l_9 | .0819 | 1.0689 | -.1666 | -.0126 | .0399 | -.0115 |
| l_{11} | -.0404 | .8404 | .2344 | -.0216 | -.0196 | .0068 |
| l_{12} | -.0497 | .6229 | .5014 | -.0646 | -.0181 | .0081 |
| l_{13} | -.0389 | .3849 | .7534 | -.1006 | -.0041 | .0053 |
| l_{14} | -.0191 | .1659 | .9354 | -.0906 | .0069 | .0015 |

(2) for the middle age groups

| | l_{x-11} | l_{x-6} | l_{x-1} | l_{x+4} | l_{x+9} | l_{x+14} |
|-----------|------------|-----------|-----------|-----------|-----------|------------|
| l_{x+1} | .0117 | -.0921 | .9234 | .1854 | -.0311 | .0027 |
| l_{x+2} | .0137 | -.1101 | .7194 | .4454 | -.0771 | .0087 |
| l_{x+3} | .0087 | -.0771 | .4454 | .7194 | -.1101 | .0137 |
| l_{x+4} | .0027 | -.0311 | .1854 | .9234 | -.0921 | .0117 |

3) Coale, A.J., and P. Demeny, *Regional Model Life Tables and Stable Population*. Princeton, Princeton University Press. Part I, 1966, p. 42.

(3) for the last two age groups

| | l_{55} | l_{60} | l_{65} | l_{70} | l_{75} | l_{80} |
|----------|----------|----------|----------|----------|----------|----------|
| l_{71} | .0015 | .0069 | -.0906 | .9354 | .1659 | -.0191 |
| l_{72} | .0053 | -.0041 | -.1006 | .7534 | .3849 | -.0389 |
| l_{73} | .0081 | -.0181 | -.0646 | .5014 | .6229 | -.0497 |
| l_{74} | .0068 | -.0196 | -.0216 | .2344 | .8404 | -.0404 |
| l_{76} | -.0115 | .0399 | -.0126 | -.1666 | 1.0689 | .0819 |
| l_{77} | -.0244 | .0884 | -.0536 | -.2456 | 1.0204 | .2148 |
| l_{78} | -.0328 | .1224 | -.0976 | -.2336 | .8344 | .4072 |
| l_{79} | -.0283 | .1079 | -.1006 | -.1426 | .4969 | .6667 |

Source: Henry S. Beers. "Discussion of Papers Presented in the Record, No. 68: 'Six-Term Formulas for Routine Actuarial Interpolation', by Henry S. Beers" The Record of the American Institute of Actuaries, 24, Part I; 59-60, June 1945.

The above formula was firstly used to obtain the intermediate values of some of the complete life tables (U.S. Life Tables for White Males, 1939-41; Life Tables for Sweden (Males and Females) 1941-50 and 1951-60) underlying the Model 'West' Life Tables. And also this was used to convert the Coale and Demeny's Regional Model Life Tables for 'west' into complete life tables.⁴⁾

It was found that the tabulated and estimated intermediate values were very close. The above formula has, therefore, been selected for estimating the intermediate values. The procedure for getting all functions of the life table from the l_x (survivors at exact age x) values are as follows.

q_x (Probability of dying between age x and x + 1)

$$= \frac{l_x - l_{x+1}}{x}$$

L_x (Years lived between age x and x + 1)

$$= .5l_x + .5l_{x+1} \text{ for } x \geq 2$$

$$\text{and } L_1 = .41l_1 + .59l_2$$

4) U.P. Sinha, *Complete Life Tables Based on Coale and Demeny's Model (west) Life Tables*. International Institute for Population Studies, 1972.

L_0 and L_{80} are borrowed from the abridged life table.

S_x (Probability of surviving between age x and $x + 1$)

$$= \frac{L_{x+1}}{L_x} \quad \text{for } x \leq 78$$

$$\text{and } S_{79} = \frac{L_{80+}}{T_{79}}$$

T_x (Total years lived after exact age x)

$$= \sum_x^{80+} L_x$$

e_x^0 (Expectation of life at exact age x)

$$= \frac{T_x}{l_x}$$

3. Results

Using the methodology mentioned earlier to abridged life tables constructed recently for 1970 and 1978—1979, complete life tables are constructed as follows.

Table 1. Complete Life Table for Korea 1970: Male

| Age | l_x | q_x | L_x | S_x | T_x | e_x^0 |
|-----|--------|--------|---------|--------|-----------|---------|
| 0 | 100000 | .05494 | 95607.0 | .94322 | 5981146.8 | 59.811 |
| 1 | 94506 | .00766 | 94078.8 | .99487 | 5885539.8 | 62.277 |
| 2 | 93782 | .00394 | 93597.0 | .99660 | 5791461.0 | 61.754 |
| 3 | 93412 | .00286 | 93278.5 | .99733 | 5697864.0 | 60.997 |
| 4 | 93145 | .00248 | 93029.5 | .99781 | 5604585.5 | 60.170 |
| 5 | 92914 | .00189 | 92826.0 | .99827 | 5511556.0 | 59.319 |
| 6 | 92738 | .00156 | 92665.5 | .99856 | 5418730.0 | 58.430 |
| 7 | 92593 | .00132 | 92532.0 | .99877 | 5326064.5 | 57.521 |
| 8 | 92471 | .00114 | 92418.5 | .99892 | 5233532.5 | 56.596 |
| 9 | 92366 | .00102 | 92319.0 | .99901 | 5141114.0 | 55.660 |
| 10 | 92272 | .00095 | 92228.0 | .99904 | 5048795.0 | 54.716 |
| 11 | 92184 | .00095 | 92140.0 | .99902 | 4956567.0 | 53.768 |
| 12 | 92096 | .00101 | 92049.5 | .99894 | 4864427.0 | 52.819 |
| 13 | 92003 | .00111 | 91952.0 | .99882 | 4772377.5 | 51.872 |

Table 1. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^o |
|-----|-------|--------|---------|--------|-----------|---------|
| 14 | 91901 | .00125 | 91843.5 | .99866 | 4680425.5 | 50.929 |
| 15 | 91786 | .00143 | 91720.5 | .99848 | 4588582.0 | 49.992 |
| 16 | 91655 | .00161 | 91581.0 | .99829 | 4496861.5 | 49.063 |
| 17 | 91507 | .00180 | 91424.5 | .99811 | 4405280.5 | 48.141 |
| 18 | 91342 | .00198 | 91251.5 | .99794 | 4313856.0 | 47.228 |
| 19 | 91161 | .00214 | 91063.5 | .99777 | 4222604.5 | 46.320 |
| 20 | 90966 | .00232 | 90860.5 | .99760 | 4131541.0 | 45.418 |
| 21 | 90755 | .00249 | 90642.0 | .99745 | 4040680.5 | 44.523 |
| 22 | 90529 | .00261 | 90411.0 | .99737 | 3950038.5 | 43.633 |
| 23 | 90293 | .00266 | 90173.0 | .99735 | 3859627.5 | 42.746 |
| 24 | 90053 | .00264 | 89934.0 | .99736 | 3769454.5 | 41.858 |
| 25 | 89815 | .00263 | 89697.0 | .99738 | 3679520.5 | 40.968 |
| 26 | 89579 | .00260 | 89462.5 | .99739 | 3589823.5 | 40.074 |
| 27 | 89346 | .00262 | 89229.0 | .99737 | 3500361.0 | 39.178 |
| 28 | 89112 | .00264 | 88994.5 | .99732 | 3411132.0 | 38.279 |
| 29 | 88877 | .00271 | 88756.5 | .99724 | 3322137.5 | 37.379 |
| 30 | 88636 | .00280 | 88512.0 | .99714 | 3233381.0 | 36.479 |
| 31 | 88388 | .00292 | 88259.0 | .99705 | 3144869.0 | 35.580 |
| 32 | 88130 | .00298 | 87998.5 | .99698 | 3056610.0 | 34.683 |
| 33 | 87867 | .00305 | 87733.0 | .99693 | 2968611.5 | 33.785 |
| 34 | 87599 | .00309 | 87463.5 | .99689 | 2880878.5 | 32.887 |
| 35 | 87328 | .00313 | 87191.5 | .99682 | 2793415.0 | 31.988 |
| 36 | 87055 | .00323 | 86914.5 | .99662 | 2706223.5 | 31.086 |
| 37 | 86774 | .00354 | 86620.5 | .99618 | 2619309.0 | 30.185 |
| 38 | 86467 | .00410 | 86289.5 | .99552 | 2532688.5 | 29.291 |
| 39 | 86112 | .00485 | 85903.0 | .99470 | 2446399.0 | 28.410 |
| 40 | 85694 | .00574 | 85448.0 | .99384 | 2360496.0 | 27.546 |
| 41 | 85202 | .00658 | 84921.5 | .99305 | 2275048.0 | 26.702 |
| 42 | 84641 | .00731 | 84331.5 | .99243 | 2190126.5 | 25.875 |
| 43 | 84022 | .00783 | 83693.0 | .99198 | 2105795.0 | 25.062 |
| 44 | 83364 | .00820 | 83022.0 | .99161 | 2022102.0 | 24.256 |
| 45 | 82680 | .00858 | 82325.5 | .99119 | 1939080.0 | 23.453 |
| 46 | 81971 | .00905 | 81600.0 | .99065 | 1856754.5 | 22.651 |
| 47 | 81229 | .00965 | 80837.0 | .98996 | 1775154.5 | 21.854 |
| 48 | 80445 | .01043 | 80025.5 | .98912 | 1694317.5 | 21.062 |
| 49 | 79606 | .01134 | 79154.5 | .98814 | 1614292.0 | 20.278 |

Table 1. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^0 |
|-----------------|-------|---------|---------|--------|-----------|---------|
| 50 | 78703 | .01239 | 78215.5 | .98705 | 1535137.5 | 19.505 |
| 51 | 77728 | .01352 | 77202.5 | .98589 | 1456922.0 | 18.744 |
| 52 | 76677 | .01470 | 76113.5 | .98470 | 1379719.5 | 17.994 |
| 53 | 75550 | .01591 | 74949.0 | .98344 | 1303606.0 | 17.255 |
| 54 | 74348 | .01722 | 73708.0 | .99430 | 1228657.0 | 16.526 |
| 55 | 73068 | .01861 | 72388.0 | .98059 | 1154949.0 | 15.806 |
| 56 | 71708 | .02022 | 70983.0 | .97878 | 1082561.0 | 15.097 |
| 57 | 70258 | .02225 | 69476.5 | .97647 | 1011578.0 | 14.398 |
| 58 | 68695 | .02485 | 67841.5 | .97362 | 942101.5 | 13.714 |
| 59 | 66988 | .02794 | 66052.0 | .97033 | 874260.0 | 13.051 |
| 60 | 65116 | .03145 | 64092.0 | .96677 | 808208.0 | 12.412 |
| 61 | 63068 | .03506 | 61962.5 | .96297 | 744116.0 | 11.799 |
| 62 | 60857 | .03908 | 59668.0 | .95875 | 682153.5 | 11.209 |
| 63 | 58479 | .04352 | 57206.5 | .95453 | 622485.5 | 10.644 |
| 64 | 55934 | .04750 | 54605.5 | .94938 | 565279.0 | 10.106 |
| 65 | 53277 | .05389 | 51841.5 | .94320 | 510673.5 | 9.585 |
| 66 | 50406 | .05987 | 48897.0 | .93730 | 458832.0 | 9.103 |
| 67 | 47388 | .06571 | 45831.0 | .93174 | 409935.0 | 8.651 |
| 68 | 44274 | .07099 | 42702.5 | .92669 | 364104.0 | 8.224 |
| 69 | 41131 | .07581 | 39572.0 | .92188 | 321401.5 | 7.814 |
| 70 | 38013 | .08063 | 36480.5 | .91684 | 281829.5 | 7.414 |
| 71 | 34948 | .08590 | 33447.0 | .91111 | 245349.0 | 7.020 |
| 72 | 31946 | .09216 | 30474.0 | .90423 | 211902.0 | 6.633 |
| 73 | 29002 | .09975 | 27555.5 | .89594 | 181428.0 | 6.256 |
| 74 | 26109 | .10885 | 24688.0 | .88610 | 153872.5 | 5.893 |
| 75 | 23267 | .11957 | 21876.0 | .87463 | 129184.5 | 5.552 |
| 76 | 20485 | .13195 | 19133.5 | .86163 | 107308.5 | 5.238 |
| 77 | 17782 | .14576 | 16486.0 | .84738 | 88175.0 | 4.959 |
| 78 | 15190 | .16063 | 13970.0 | .83271 | 71689.0 | 4.719 |
| 79 | 12750 | .17522 | 11633.0 | .79845 | 57719.0 | 4.527 |
| 80 ⁺ | 10516 | 1.00000 | 46086.0 | | 46086.0 | 4.382 |

Table 2. Complete Life Table for Korea 1970: Female

| Age | l_x | q_x | L_x | S_x | T_x | e_x^0 |
|-----|--------|--------|---------|--------|-----------|---------|
| 0 | 100000 | .04308 | 96464.0 | .98788 | 6676259.9 | 66.763 |
| 1 | 95692 | .00703 | 95294.9 | .99541 | 6579795.9 | 68.760 |

Table 2. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x° |
|-----|-------|--------|---------|--------|-----------|-------------|
| 2 | 95019 | .00340 | 94857.5 | .99712 | 6484501.0 | 68.244 |
| 3 | 94696 | .00236 | 94584.0 | .99773 | 6389643.5 | 67.475 |
| 4 | 94472 | .00217 | 94369.5 | .99818 | 6295059.5 | 66.634 |
| 5 | 94267 | .00147 | 94197.5 | .99862 | 6200690.0 | 65.778 |
| 6 | 94128 | .00127 | 94068.0 | .99880 | 6106492.5 | 64.874 |
| 7 | 94008 | .00112 | 93955.5 | .99895 | 6012424.5 | 63.956 |
| 8 | 93903 | .00098 | 93857.0 | .99907 | 5918469.0 | 63.027 |
| 9 | 93811 | .00088 | 93769.5 | .99915 | 5824612.0 | 62.089 |
| 10 | 93728 | .00082 | 93689.5 | .99918 | 5730842.5 | 61.143 |
| 11 | 93651 | .00081 | 93613.0 | .99917 | 5637153.0 | 60.193 |
| 12 | 93575 | .00084 | 93535.5 | .99912 | 5543540.0 | 59.242 |
| 13 | 93496 | .00091 | 93453.5 | .99903 | 5450004.5 | 58.291 |
| 14 | 93411 | .00010 | 93363.0 | .99890 | 5356551.0 | 57.343 |
| 15 | 93315 | .00117 | 93260.5 | .99876 | 5263188.0 | 56.402 |
| 16 | 93206 | .00131 | 93145.0 | .99862 | 5169927.5 | 55.468 |
| 17 | 93084 | .00145 | 93016.5 | .99850 | 5076782.5 | 54.540 |
| 18 | 92949 | .00155 | 92877.0 | .99841 | 4983766.0 | 53.618 |
| 19 | 92805 | .00163 | 92729.5 | .99833 | 4890889.0 | 52.701 |
| 20 | 92654 | .00172 | 92574.5 | .99824 | 4798159.5 | 51.786 |
| 21 | 92495 | .00180 | 92411.5 | .99815 | 4705585.0 | 50.874 |
| 22 | 92328 | .00190 | 92240.5 | .99807 | 4613173.5 | 49.965 |
| 23 | 92153 | .00196 | 92062.5 | .99801 | 4520933.0 | 49.059 |
| 24 | 91972 | .00201 | 91879.5 | .99796 | 4428870.5 | 48.154 |
| 25 | 91787 | .00207 | 91692.0 | .99790 | 4336991.0 | 47.251 |
| 26 | 91597 | .00213 | 91499.5 | .99784 | 4245299.0 | 46.348 |
| 27 | 91402 | .00220 | 91301.5 | .99776 | 4153799.5 | 45.445 |
| 28 | 91201 | .00227 | 91097.5 | .99769 | 4062498.0 | 44.544 |
| 29 | 90994 | .00235 | 90887.0 | .99760 | 3971400.5 | 43.645 |
| 30 | 90780 | .00244 | 90669.0 | .99751 | 3880513.5 | 42.746 |
| 31 | 90558 | .00254 | 90443.0 | .99741 | 3789844.5 | 41.850 |
| 32 | 90328 | .00263 | 90209.0 | .99732 | 3699401.5 | 40.955 |
| 33 | 90090 | .00273 | 89967.0 | .99722 | 3609192.5 | 40.062 |
| 34 | 89844 | .00283 | 89717.0 | .99712 | 3519225.5 | 39.170 |
| 35 | 89590 | .00294 | 89458.5 | .99700 | 3429508.5 | 38.280 |
| 36 | 89327 | .00306 | 89190.5 | .99688 | 3340050.0 | 37.391 |
| 37 | 89054 | .00319 | 88912.0 | .99674 | 3250859.5 | 36.504 |

Table 2. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^o |
|-----|-------|--------|---------|--------|-----------|---------|
| 38 | 88770 | .00333 | 88622.0 | .99659 | 3161947.5 | 35.620 |
| 39 | 88474 | .00348 | 88320.0 | .99643 | 3073325.5 | 34.737 |
| 40 | 88166 | .00366 | 88004.5 | .99624 | 2985005.5 | 33.857 |
| 41 | 87843 | .00386 | 87673.5 | .99603 | 2897001.0 | 32.979 |
| 42 | 87504 | .00522 | 87325.5 | .99580 | 2809327.5 | 32.105 |
| 43 | 87147 | .00431 | 86959.0 | .99554 | 2722002.0 | 31.235 |
| 44 | 86771 | .00460 | 86571.5 | .99525 | 2635043.0 | 30.368 |
| 45 | 86372 | .00490 | 86160.5 | .99494 | 2548471.5 | 29.506 |
| 46 | 85949 | .00522 | 85724.5 | .99459 | 2462311.0 | 28.648 |
| 47 | 85500 | .00560 | 85260.5 | .99419 | 2376586.5 | 27.796 |
| 48 | 85021 | .00601 | 84765.5 | .99376 | 2291326.0 | 26.950 |
| 49 | 84510 | .00646 | 84237.0 | .99329 | 2206560.5 | 26.110 |
| 50 | 83964 | .00697 | 83671.5 | .99276 | 2122323.5 | 25.276 |
| 51 | 83379 | .00752 | 83065.5 | .99219 | 2038652.0 | 24.450 |
| 52 | 82752 | .00811 | 82416.5 | .99160 | 1955586.5 | 23.632 |
| 53 | 82081 | .00870 | 81724.0 | .99098 | 1873170.0 | 22.821 |
| 54 | 81367 | .00934 | 80987.0 | .99031 | 1791446.0 | 22.017 |
| 55 | 80607 | .01005 | 80202.0 | .98956 | 1710459.0 | 21.220 |
| 56 | 79797 | .01084 | 79364.5 | .98871 | 1630257.0 | 20.430 |
| 57 | 78932 | .01174 | 78468.5 | .98773 | 1550892.5 | 19.648 |
| 58 | 78005 | .01279 | 77506.0 | .98662 | 1472424.0 | 18.876 |
| 59 | 77007 | .01397 | 76469.0 | .98539 | 1394918.0 | 18.114 |
| 60 | 75931 | .01526 | 75351.5 | .98403 | 1318449.0 | 17.364 |
| 61 | 74772 | .01669 | 74148.0 | .98252 | 1243097.5 | 16.625 |
| 62 | 73524 | .01828 | 72852.0 | .98080 | 1168949.5 | 15.899 |
| 63 | 72180 | .02013 | 71453.5 | .97886 | 1096097.5 | 15.186 |
| 64 | 70727 | .02217 | 69943.0 | .97672 | 1024644.0 | 14.487 |
| 65 | 69159 | .02442 | 68314.5 | .97438 | 954701.0 | 13.804 |
| 66 | 67470 | .02684 | 66564.5 | .97183 | 886386.5 | 13.137 |
| 67 | 65659 | .02953 | 64689.5 | .96900 | 819822.0 | 12.486 |
| 68 | 63720 | .03250 | 62684.5 | .96588 | 755132.5 | 11.851 |
| 69 | 61649 | .03578 | 60546.0 | .96245 | 692448.0 | 11.232 |
| 70 | 59443 | .03938 | 58272.5 | .95867 | 631902.0 | 10.630 |
| 71 | 57102 | .04336 | 55864.0 | .95451 | 573629.5 | 10.046 |
| 72 | 54626 | .04771 | 53323.0 | .94996 | 517765.5 | 9.478 |
| 73 | 52020 | .05250 | 50654.5 | .93501 | 464442.5 | 8.928 |

Table 2. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^o |
|-----|-------|---------|----------|--------|----------|---------|
| 74 | 49289 | .07817 | 47362.5 | .93855 | 413788.0 | 8.395 |
| 75 | 45436 | .11101 | 44452.0 | .94326 | 366425.5 | 8.065 |
| 76 | 43468 | .07076 | 41930.0 | .92544 | 321973.5 | 7.407 |
| 77 | 40392 | .07865 | 38803.5 | .91690 | 280043.5 | 6.933 |
| 78 | 37215 | .08792 | 35579.0 | .93493 | 241240.0 | 6.482 |
| 79 | 33943 | .09893 | 33264.0 | .83826 | 205661.0 | 6.059 |
| 80 | 30585 | 1.00000 | 172397.0 | | 172397.0 | 5.637 |

Table 3. Complete Life Table for Korea 1978—79: Male

| Age | l_x | q_x | L_x | S_x | T_x | e_x |
|-----|--------|--------|-------|--------|---------|--------|
| 0 | 100000 | .03140 | 97277 | .98886 | 6274273 | 62.742 |
| 1 | 96860 | .00389 | 96638 | .99758 | 6176996 | 63.772 |
| 2 | 96483 | .00163 | 96404 | .99858 | 6080358 | 63.020 |
| 3 | 96326 | .00122 | 96267 | .99819 | 5983954 | 62.122 |
| 4 | 96208 | .00239 | 96093 | .99807 | 5887687 | 61.197 |
| 5 | 95978 | .00147 | 95908 | .99864 | 5791594 | 60.343 |
| 6 | 95837 | .00123 | 95778 | .99885 | 5695686 | 59.431 |
| 7 | 95719 | .00106 | 95668 | .99903 | 5599908 | 58.504 |
| 8 | 95618 | .00090 | 95575 | .99913 | 5504240 | 57.565 |
| 9 | 95532 | .00083 | 95492 | .99920 | 5408665 | 56.616 |
| 10 | 95453 | .00078 | 95416 | .99921 | 5313173 | 55.663 |
| 11 | 95378 | .00078 | 95341 | .99919 | 5217757 | 54.706 |
| 12 | 95304 | .00084 | 95264 | .99912 | 5122416 | 53.748 |
| 13 | 95224 | .00092 | 95180 | .99901 | 5027152 | 52.793 |
| 14 | 95136 | .00104 | 95086 | .99888 | 4931972 | 51.841 |
| 15 | 95037 | .00120 | 94980 | .99873 | 4836886 | 50.895 |
| 16 | 94923 | .00135 | 94859 | .99857 | 4741906 | 49.955 |
| 17 | 94795 | .00152 | 94723 | .99840 | 4647047 | 49.022 |
| 18 | 94651 | .00167 | 94572 | .99826 | 4552324 | 48.095 |
| 19 | 94493 | .00180 | 94408 | .99812 | 4457752 | 47.175 |
| 20 | 94323 | .00195 | 94231 | .99797 | 4363344 | 46.260 |
| 21 | 94139 | .00209 | 94040 | .99785 | 4269113 | 45.349 |
| 22 | 93942 | .00220 | 93838 | .99776 | 4175073 | 44.443 |
| 23 | 93735 | .00228 | 93628 | .99769 | 4081235 | 43.540 |
| 24 | 93521 | .00232 | 93412 | .99767 | 3987607 | 42.639 |
| 25 | 93304 | .00236 | 93194 | .99762 | 3894195 | 41.737 |

Table 3. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^c |
|-----|-------|--------|-------|--------|---------|---------|
| 26 | 93084 | .00240 | 92972 | .99759 | 3801001 | 40.834 |
| 27 | 92861 | .00243 | 92748 | .99754 | 3708029 | 39.931 |
| 28 | 92635 | .00247 | 92520 | .99751 | 3615281 | 39.027 |
| 29 | 92406 | .00251 | 92290 | .99744 | 3622761 | 38.123 |
| 30 | 92174 | .00259 | 92054 | .99737 | 3430471 | 37.217 |
| 31 | 91935 | .00266 | 91812 | .99731 | 3338417 | 36.312 |
| 32 | 91690 | .00273 | 91565 | .99726 | 3246605 | 35.408 |
| 33 | 91440 | .00274 | 91314 | .99726 | 3155040 | 34.504 |
| 34 | 91189 | .00273 | 91064 | .99728 | 3063726 | 33.598 |
| 35 | 90940 | .00272 | 90816 | .99727 | 2972662 | 32.688 |
| 36 | 90693 | .00276 | 90568 | .99713 | 2881846 | 31.776 |
| 37 | 90443 | .00300 | 90308 | .99674 | 2791278 | 30.862 |
| 38 | 90172 | .00352 | 90014 | .99613 | 2700970 | 29.954 |
| 39 | 89855 | .00421 | 89666 | .99538 | 2610956 | 29.057 |
| 40 | 89477 | .00503 | 89252 | .99458 | 2521290 | 28.178 |
| 41 | 89027 | .00581 | 88768 | .99385 | 2432038 | 27.318 |
| 42 | 88510 | .00650 | 88222 | .99327 | 2343270 | 26.475 |
| 43 | 87935 | .00697 | 87628 | .99286 | 2255048 | 25.644 |
| 44 | 87322 | .00732 | 87002 | .99250 | 2167420 | 24.821 |
| 45 | 86683 | .00767 | 86350 | .99210 | 2080418 | 24.000 |
| 46 | 86018 | .00814 | 85668 | .99158 | 1994068 | 23.182 |
| 47 | 85318 | .00870 | 84947 | .99092 | 1908400 | 22.368 |
| 48 | 84576 | .00945 | 84176 | .99013 | 1823453 | 21.560 |
| 49 | 83777 | .01031 | 83345 | .98919 | 1739277 | 20.761 |
| 50 | 82913 | .01131 | 82444 | .98816 | 1655932 | 19.972 |
| 51 | 81975 | .01238 | 81468 | .98704 | 1573488 | 19.195 |
| 52 | 80960 | .01354 | 80412 | .98587 | 1492020 | 18.429 |
| 53 | 79864 | .01474 | 79276 | .98461 | 1411608 | 17.675 |
| 54 | 78687 | .01605 | 78056 | .98324 | 1332332 | 16.932 |
| 55 | 77424 | .01746 | 76748 | .98176 | 1254276 | 16.200 |
| 56 | 76072 | .01905 | 75348 | .98000 | 1177528 | 15.479 |
| 57 | 74623 | .02105 | 73838 | .97771 | 1102180 | 14.770 |
| 58 | 73052 | .02354 | 72192 | .97500 | 1028342 | 14.077 |
| 59 | 71332 | .02650 | 70387 | .97194 | 956150 | 13.404 |
| 60 | 69442 | .02966 | 68412 | .96869 | 885763 | 12.755 |
| 61 | 67382 | .03302 | 66270 | .96511 | 817351 | 12.130 |

Table 3. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^0 |
|-----|-------|---------|-------|--------|--------|---------|
| 62 | 65157 | .03682 | 63958 | .96107 | 751081 | 11.527 |
| 63 | 62758 | .04113 | 61468 | .95653 | 687123 | 10.949 |
| 64 | 60177 | .04590 | 58796 | .95146 | 625655 | 10.397 |
| 65 | 57415 | .05129 | 55942 | .94591 | 566859 | 9.873 |
| 66 | 54470 | .05704 | 52916 | .94026 | 510917 | 9.380 |
| 67 | 51363 | .06261 | 49755 | .93494 | 458001 | 8.917 |
| 68 | 48147 | .06769 | 46518 | .93005 | 408246 | 8.479 |
| 69 | 44888 | .07234 | 43264 | .92543 | 361728 | 8.058 |
| 70 | 41641 | .07699 | 40038 | .92052 | 318464 | 7.648 |
| 71 | 38435 | .08214 | 36856 | .91499 | 278426 | 7.244 |
| 72 | 35278 | .08816 | 33723 | .90837 | 241570 | 6.848 |
| 73 | 32168 | .09544 | 30633 | .90043 | 207847 | 6.461 |
| 74 | 29098 | .10413 | 27583 | .89106 | 177214 | 6.090 |
| 75 | 26068 | .11432 | 24578 | .88022 | 149631 | 5.740 |
| 76 | 23088 | .12595 | 21634 | .86798 | 125053 | 5.416 |
| 77 | 20180 | .13900 | 18778 | .85456 | 103419 | 5.124 |
| 78 | 17375 | .15286 | 16047 | .84084 | 84641 | 4.871 |
| 79 | 14719 | .16659 | 13493 | .80329 | 68594 | 4.660 |
| 80+ | 12267 | 1.00000 | 55101 | | 55101 | 4.492 |

Table 4. Complete Life Table for Korea 1978—79: Female

| Age | l_x | q_x | L_x | S_x | T_x | e_x^0 |
|-----|--------|--------|---------|--------|-----------|---------|
| 0 | 100000 | .03443 | 96607.0 | .98808 | 6914356.2 | 69.143 |
| 1 | 95897 | .00780 | 95455.7 | .99516 | 6817749.2 | 71.094 |
| 2 | 95149 | .00326 | 94994.0 | .99724 | 6722293.5 | 70.650 |
| 3 | 94839 | .00227 | 94731.5 | .99693 | 6627299.5 | 69.879 |
| 4 | 94624 | .00388 | 94440.5 | .99758 | 6532568.0 | 69.037 |
| 5 | 94257 | .00095 | 94212.0 | .99912 | 6438127.5 | 68.304 |
| 6 | 94167 | .00081 | 94129.0 | .99926 | 6343915.5 | 67.369 |
| 7 | 94091 | .00068 | 94059.0 | .99937 | 6249786.5 | 66.423 |
| 8 | 94027 | .00057 | 93999.5 | .99945 | 6155727.5 | 65.468 |
| 9 | 93972 | .00052 | 93947.5 | .99950 | 6061728.0 | 64.505 |
| 10 | 93923 | .00048 | 93900.5 | .99953 | 5967780.5 | 63.539 |
| 11 | 93878 | .00047 | 93856.0 | .99952 | 5873880.0 | 62.569 |
| 12 | 93834 | .00049 | 93811.0 | .99948 | 5780024.0 | 61.598 |

Table 4. Continued

| Age | l_x | q_x | L_x | S_x | T_x | e_x^o |
|-----|-------|--------|---------|--------|-----------|---------|
| 13 | 93788 | .00054 | 93762.5 | .99942 | 5686213.0 | 60.628 |
| 14 | 93737 | .00061 | 93708.5 | .99935 | 5592450.5 | 59.661 |
| 15 | 93680 | .00069 | 93647.5 | .99926 | 5498742.0 | 58.697 |
| 16 | 93615 | .00079 | 93578.0 | .99917 | 5405094.5 | 57.737 |
| 17 | 93541 | .00086 | 93500.5 | .99910 | 5311516.5 | 56.783 |
| 18 | 93460 | .00094 | 93416.0 | .99902 | 5218016.0 | 55.832 |
| 19 | 93372 | .00101 | 93325.0 | .99896 | 5124600.0 | 54.884 |
| 20 | 93278 | .00106 | 93228.5 | .99890 | 5031275.0 | 53.938 |
| 21 | 93179 | .00113 | 93126.5 | .99886 | 4938046.5 | 52.995 |
| 22 | 93074 | .00116 | 93020.0 | .99883 | 4844920.0 | 52.054 |
| 23 | 92966 | .00118 | 92911.0 | .99882 | 4751900.0 | 51.114 |
| 24 | 92856 | .00118 | 92801.0 | .99881 | 4658989.0 | 50.174 |
| 25 | 92746 | .00119 | 92691.0 | .99881 | 4566188.0 | 49.233 |
| 26 | 92636 | .00119 | 92581.0 | .99881 | 4473497.0 | 48.291 |
| 27 | 92526 | .00119 | 92471.0 | .99882 | 4380916.0 | 47.348 |
| 28 | 92416 | .00117 | 92362.0 | .99885 | 4288445.0 | 46.404 |
| 29 | 92308 | .00114 | 92255.5 | .99887 | 4196083.0 | 45.457 |
| 30 | 92203 | .00112 | 92151.5 | .99888 | 4103827.5 | 44.509 |
| 31 | 92100 | .00112 | 92048.5 | .99886 | 4011676.0 | 43.558 |
| 32 | 91997 | .00115 | 91944.0 | .99881 | 3919627.5 | 42.606 |
| 33 | 91891 | .00123 | 91834.5 | .99871 | 3827683.5 | 41.655 |
| 34 | 91778 | .00135 | 91716.0 | .99876 | 3735849.0 | 40.705 |
| 35 | 91654 | .00112 | 91602.5 | .99888 | 3644133.0 | 39.760 |
| 36 | 91551 | .00111 | 91500.0 | .99880 | 3552530.5 | 38.804 |
| 37 | 91449 | .00129 | 91390.0 | .99852 | 3461030.5 | 37.846 |
| 38 | 91331 | .00168 | 91254.5 | .99707 | 3369640.5 | 36.895 |
| 39 | 91178 | .00419 | 90987.0 | .99747 | 3278386.0 | 35.956 |
| 40 | 90796 | .00087 | 90756.5 | .99784 | 3187399.0 | 35.105 |
| 41 | 90717 | .00344 | 90561.0 | .99636 | 3096642.5 | 34.135 |
| 42 | 90405 | .00385 | 90231.0 | .99606 | 3006081.5 | 33.251 |
| 43 | 90057 | .00403 | 89875.5 | .99597 | 2915850.5 | 32.378 |
| 44 | 89694 | .00402 | 89513.5 | .99599 | 2825975.0 | 31.507 |
| 45 | 89333 | .00400 | 89154.5 | .99598 | 2736461.5 | 30.632 |
| 46 | 88976 | .00403 | 88796.5 | .99590 | 2647307.0 | 29.753 |
| 47 | 88617 | .00418 | 88432.0 | .99570 | 2558510.5 | 28.872 |
| 48 | 88247 | .00443 | 88051.5 | .99537 | 2470078.5 | 27.990 |

Table 4. Continued

| Age | ℓ_x | q_x | L_x | S_x | T_x | e_x° |
|-----|----------|---------|----------|--------|-----------|-------------|
| 49 | 87856 | .00484 | 87643.5 | .99494 | 2382027.0 | 27.113 |
| 50 | 87431 | .00528 | 87200.0 | .99448 | 2294383.5 | 26.242 |
| 51 | 86969 | .00575 | 86719.0 | .99401 | 2207183.5 | 25.379 |
| 52 | 86469 | .00623 | 86199.5 | .99353 | 2120464.5 | 24.523 |
| 53 | 85930 | .00671 | 85641.5 | .99303 | 2034265.0 | 23.674 |
| 54 | 85353 | .00722 | 85045.0 | .99250 | 1948623.5 | 22.830 |
| 55 | 84737 | .00779 | 84407.0 | .99188 | 1863578.5 | 21.992 |
| 56 | 84077 | .00846 | 83721.5 | .99116 | 1779171.5 | 21.161 |
| 57 | 83366 | .00924 | 82981.0 | .99027 | 1695450.0 | 20.337 |
| 58 | 82596 | .01022 | 82174.0 | .98924 | 1612469.0 | 19.522 |
| 59 | 81752 | .01131 | 81289.5 | .98805 | 1530295.0 | 18.719 |
| 60 | 80827 | .01259 | 80318.0 | .98670 | 1449005.5 | 17.927 |
| 61 | 79809 | .01402 | 79249.5 | .98524 | 1368687.5 | 17.150 |
| 62 | 78690 | .01550 | 78080.0 | .98373 | 1289438.0 | 16.386 |
| 63 | 77470 | .01705 | 76809.5 | .98211 | 1211358.0 | 15.636 |
| 64 | 76149 | .01874 | 75435.5 | .98043 | 1134548.5 | 14.899 |
| 65 | 74722 | .02041 | 73959.5 | .97863 | 1059113.0 | 14.174 |
| 66 | 73197 | .02235 | 72379.0 | .97629 | 985153.5 | 13.459 |
| 67 | 71561 | .02510 | 70663.0 | .97301 | 912774.5 | 12.755 |
| 68 | 69765 | .02892 | 68756.0 | .96874 | 842111.5 | 12.071 |
| 69 | 67747 | .03365 | 66607.0 | .96376 | 773355.5 | 11.415 |
| 70 | 65467 | .03892 | 64193.0 | .95841 | 706748.5 | 10.795 |
| 71 | 62919 | .04437 | 61523.0 | .95301 | 642555.5 | 10.212 |
| 72 | 60127 | .04973 | 58632.0 | .94775 | 581032.5 | 9.663 |
| 73 | 57137 | .05490 | 55568.5 | .94268 | 522400.5 | 9.143 |
| 74 | 54000 | .05987 | 51383.5 | .93778 | 466832.0 | 8.645 |
| 75 | 50767 | .06473 | 49124.0 | .93291 | 414448.5 | 8.164 |
| 76 | 47481 | .06961 | 45828.5 | .92796 | 365324.5 | 7.694 |
| 77 | 44176 | .07466 | 42527.0 | .92271 | 319496.0 | 7.232 |
| 78 | 40878 | .08014 | 39240.0 | .91690 | 276969.0 | 6.776 |
| 79 | 37602 | .08632 | 35979.0 | .84866 | 237729.0 | 6.322 |
| 80+ | 34356 | 1.00000 | 201750.0 | | 201750.0 | 5.872 |

References

1. Coale, A.J., and P. Demeny, *Regional Model Life Tables and Stable Populations*, Princeton, Princeton University Press, 1966.
2. Economic Planning Board, Bureau of the Census, *Life Table for Korea; 1978—79*, 1980.
3. Henry S. Beers, "Discussion of Papers Presented in the Record, No. 68", *The Record of the American Institute of Actuaries*, 24, 1945.
4. Henry S. Shryock and Jacob S. Siegel, *The Method and Materials of Demography*, U.S. Department of Commerce, Bureau of the Census, 1971.
5. U.N. ESCAP, *Population of the Republic of Korea, Country Monograph Series No. 2*, 1975.
6. U.P. Sinha, *Complete Life Tables Based on Coale and Demeny's Model (west) Life Tables*, International Institute for Population Studies, 1972.