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# Abridged Life Tables For Japan 2005

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## I . Life expectancies at specified ages

In the abridged life tables for 2005, life expectancy at birth for males is 78.53 years, decreased by 0.11 years from that of the previous year, and that for females is 85.49 years, decreased by 0.10 years.

Life expectancies at specified ages for males and females decrease at all age. The difference in life expectancy at birth between males and females is 6.96 years, 0.01 years longer than that of the previous year.

**Table 1. Life expectancies at specified ages and their increments compared with that of the previous year**

| Age | Male  |       |          | Female |       |          |
|-----|-------|-------|----------|--------|-------|----------|
|     | 2005  | 2004  | Increase | 2005   | 2004  | Increase |
| 0   | 78.53 | 78.64 | △ 0.11   | 85.49  | 85.59 | △ 0.10   |
| 5   | 73.85 | 73.96 | △ 0.11   | 80.78  | 80.88 | △ 0.10   |
| 10  | 68.90 | 69.00 | △ 0.10   | 75.81  | 75.92 | △ 0.11   |
| 15  | 63.94 | 64.04 | △ 0.10   | 70.84  | 70.94 | △ 0.10   |
| 20  | 59.05 | 59.15 | △ 0.10   | 65.90  | 66.01 | △ 0.11   |
| 25  | 54.22 | 54.32 | △ 0.10   | 60.99  | 61.09 | △ 0.10   |
| 30  | 49.39 | 49.49 | △ 0.10   | 56.09  | 56.18 | △ 0.09   |
| 35  | 44.58 | 44.68 | △ 0.10   | 51.20  | 51.29 | △ 0.09   |
| 40  | 39.82 | 39.93 | △ 0.11   | 46.35  | 46.44 | △ 0.09   |
| 45  | 35.14 | 35.25 | △ 0.11   | 41.54  | 41.63 | △ 0.09   |
| 50  | 30.59 | 30.70 | △ 0.11   | 36.81  | 36.90 | △ 0.09   |
| 55  | 26.21 | 26.33 | △ 0.12   | 32.17  | 32.27 | △ 0.10   |
| 60  | 22.06 | 22.17 | △ 0.11   | 27.62  | 27.74 | △ 0.12   |
| 65  | 18.11 | 18.21 | △ 0.10   | 23.16  | 23.28 | △ 0.12   |
| 70  | 14.38 | 14.51 | △ 0.13   | 18.85  | 18.98 | △ 0.13   |
| 75  | 11.07 | 11.23 | △ 0.16   | 14.80  | 14.93 | △ 0.13   |
| 80  | 8.23  | 8.39  | △ 0.16   | 11.11  | 11.23 | △ 0.12   |
| 85  | 5.93  | 6.07  | △ 0.14   | 7.97   | 8.10  | △ 0.13   |
| 90  | 4.23  | 4.36  | △ 0.13   | 5.56   | 5.69  | △ 0.13   |
| 95  | 3.05  | 3.21  | △ 0.16   | 3.90   | 4.02  | △ 0.12   |
| 100 | 2.21  | 2.41  | △ 0.20   | 2.80   | 2.96  | △ 0.16   |

**Table 2. Trends of life expectancy at birth**

| Year      | Male  | Female | Difference |
|-----------|-------|--------|------------|
| 1947      | 50.06 | 53.96  | 3.90       |
| 1950-1952 | 59.57 | 62.97  | 3.40       |
| 1955      | 63.60 | 67.75  | 4.15       |
| 1960      | 65.32 | 70.19  | 4.87       |
| 1965      | 67.74 | 72.92  | 5.18       |
| 1970      | 69.31 | 74.66  | 5.35       |
| 1975      | 71.73 | 76.89  | 5.16       |
| 1980      | 73.35 | 78.76  | 5.41       |
| 1985      | 74.78 | 80.48  | 5.70       |
| 1990      | 75.92 | 81.90  | 5.98       |
| 1995      | 76.38 | 82.85  | 6.47       |
| 2000      | 77.72 | 84.60  | 6.88       |
| 2001      | 78.07 | 84.93  | 6.86       |
| 2002      | 78.32 | 85.23  | 6.91       |
| 2003      | 78.36 | 85.33  | 6.97       |
| 2004      | 78.64 | 85.59  | 6.95       |
| 2005      | 78.53 | 85.49  | 6.96       |

Notes:1.Data up to 2000 is based on complete life tables.

2.Before 1970, data of Okinawa prefecture is not included.

## II . Survival situation in the life table

In the abridged life tables for 2005, the number of survivors at age 65 is 85,606 for males and 93,069 for females in a stationary population supported by 100,000 annual live births. These facts lead that the survival ratio until age 65 is 85.6% for males and 93.1% for females. In the same way, it follows that the survival ratio until age 80 is 55.0% for males and 76.8% for females.

The number of stationary population from age 0 is 7,853,104 for males and 8,548,580 for females. The number of stationary population from age 65 is 1,549,936(19.7%) for males and 2,155,750(25.2%) for females. These facts lead that ratio of total person-years from age 65 to total person-years from age 0 is 19.7% for males and 25.2% for females.

The median length of life, which means the age when exactly half of the cohort remain alive, is 81.49years for males and 88.27 years for females.

**Table 3. Survival ratio until specified ages**

(%)

| Year      | Male  |      |      | Female |      |      |
|-----------|-------|------|------|--------|------|------|
|           | Age40 | 65   | 80   | Age40  | 65   | 80   |
| 1947      | 68.0  | 39.8 | 9.5  | 70.9   | 49.1 | 17.3 |
| 1950-1952 | 81.8  | 55.1 | 16.6 | 83.2   | 62.8 | 26.1 |
| 1955      | 87.0  | 61.8 | 20.0 | 89.0   | 70.6 | 31.9 |
| 1960      | 89.7  | 64.8 | 20.1 | 92.2   | 75.2 | 33.8 |
| 1965      | 92.6  | 69.1 | 22.6 | 95.0   | 80.0 | 38.4 |
| 1970      | 93.7  | 72.1 | 26.1 | 96.1   | 82.6 | 43.0 |
| 1975      | 95.1  | 76.8 | 33.2 | 96.9   | 86.1 | 50.7 |
| 1980      | 96.1  | 79.4 | 37.8 | 97.6   | 88.5 | 57.0 |
| 1985      | 96.7  | 81.1 | 42.8 | 98.0   | 90.1 | 63.0 |
| 1990      | 97.1  | 82.6 | 46.9 | 98.3   | 91.3 | 67.8 |
| 1995      | 97.2  | 83.3 | 48.2 | 98.4   | 91.6 | 70.2 |
| 2000      | 97.5  | 84.7 | 52.5 | 98.6   | 92.6 | 74.5 |
| 2001      | 97.6  | 85.1 | 53.5 | 98.6   | 92.8 | 75.3 |
| 2002      | 97.7  | 85.4 | 54.2 | 98.6   | 92.9 | 75.9 |
| 2003      | 97.6  | 85.3 | 54.5 | 98.6   | 93.0 | 76.3 |
| 2004      | 97.7  | 85.7 | 55.2 | 98.7   | 93.0 | 76.8 |
| 2005      | 97.7  | 85.6 | 55.0 | 98.7   | 93.1 | 76.8 |

Notes:1.Data up to 2000 is based on complete life tables.

2.Before 1970, data of Okinawa prefecture is not included.

**Table 4. Total person-years from age 65 ratio**

( % )

| Year      | Male | Female |
|-----------|------|--------|
| 1947      | ...  | ...    |
| 1950-1952 | 10.5 | 13.3   |
| 1955      | 11.5 | 14.7   |
| 1960      | 11.5 | 15.1   |
| 1965      | 12.1 | 16.0   |
| 1970      | 13.0 | 17.0   |
| 1975      | 14.7 | 18.5   |
| 1980      | 15.8 | 19.9   |
| 1985      | 16.8 | 21.2   |
| 1990      | 17.6 | 22.3   |
| 1995      | 18.0 | 23.2   |
| 2000      | 19.1 | 24.5   |
| 2001      | 19.4 | 24.8   |
| 2002      | 19.6 | 25.0   |
| 2003      | 19.6 | 25.1   |
| 2004      | 19.8 | 25.3   |
| 2005      | 19.7 | 25.2   |

Notes:1.Data up to 2000 is based on complete life tables.

2.Before 1970, data of Okinawa prefecture is not included.

**Table5 The median length of life**

(years)

| Year      | Male  | Female |
|-----------|-------|--------|
| 1947      | 59.28 | 64.45  |
| 1950-1952 | 67.22 | 71.31  |
| 1955      | 69.79 | 74.19  |
| 1960      | 70.66 | 75.44  |
| 1965      | 72.00 | 77.04  |
| 1970      | 73.10 | 78.19  |
| 1975      | 75.31 | 80.17  |
| 1980      | 76.69 | 81.75  |
| 1985      | 78.06 | 83.38  |
| 1990      | 79.13 | 84.71  |
| 1995      | 79.49 | 85.73  |
| 2000      | 80.74 | 87.41  |
| 2001      | 81.08 | 87.72  |
| 2002      | 81.28 | 88.02  |
| 2003      | 81.35 | 88.09  |
| 2004      | 81.57 | 88.34  |
| 2005      | 81.49 | 88.27  |

Notes:1.Data up to 2000 is based on complete life tables.

2.Before 1970, data of Okinawa prefecture is not included.

### III. Life expectancies at birth in some countries

In general, it is rather difficult to compare the life expectancies exactly among different countries, because the periods based on are not always accordant with each other.

Next table provides the life expectancies at birth in some countries as far as we have obtained.

**Table 6. Life expectancies at birth in some countries**

| (Life expectancy:years, Population:10 thousands) |                    |            |       |        |            |
|--------------------------------------------------|--------------------|------------|-------|--------|------------|
| Country                                          |                    | Period     | Male  | Female | Population |
| Japan                                            |                    | 2005*      | 78.53 | 85.49  | 12 621     |
| AFRICA                                           | Algeria            | 2000       | 72.5  | 74.2   | 3 185      |
|                                                  | Egypt              | 2004*      | 68.4  | 72.8   | 6 798      |
|                                                  | Nigeria            | 2000-2005  | 52.0  | 52.2   | 12 615     |
|                                                  | South Africa       | 1996*      | 52.11 | 61.60  | 4 643      |
|                                                  | Tunisia            | 2004*      | 71.4  | 75.3   | 984        |
| NORTH AMERICA                                    | Canada             | 2002*      | 77.2  | 82.1   | 3 166      |
|                                                  | Mexico             | 2005*      | 73.0  | 77.9   | 10 421     |
|                                                  | United States      | 2003*      | 74.8  | 80.1   | 29 081     |
| SOUTH AMERICA                                    | Argentina          | 2000-2001* | 70.0  | 77.5   | 3 787      |
|                                                  | Brazil             | 2004*      | 67.9  | 75.5   | 17 899     |
|                                                  | Chile              | 2001-2002  | 74.4  | 80.4   | 1 592      |
|                                                  | Peru               | 1995-2000  | 65.9  | 70.8   | 2 715      |
| ASIA                                             | China              | 2000*      | 69.63 | 73.33  | 128 840    |
|                                                  | India              | 1998-2002* | 61.6  | 63.3   | 106 821    |
|                                                  | Indonesia          | 1990-1995  | 61.0  | 64.5   | 21 425     |
|                                                  | Israel             | 2003*      | 77.6  | 81.8   | 669        |
|                                                  | Korea, Republic of | 2003*      | 73.87 | 80.82  | 4 793      |
|                                                  | Malaysia           | 2002       | 70.7  | 75.2   | 2 505      |
|                                                  | Singapore          | 2005*      | 77.9  | 81.6   | 419        |
|                                                  | Thailand           | 2002*      | 69.9  | 74.9   | 6 348      |
| EUROPE                                           | Austria            | 2004*      | 76.43 | 82.14  | 812        |
|                                                  | Belgium            | 2002       | 75.1  | 81.1   | 1 038      |
|                                                  | Czech Republic     | 2005*      | 72.88 | 79.10  | 1 020      |
|                                                  | Denmark            | 2004-2005* | 75.64 | 80.24  | 539        |
|                                                  | Finland            | 2005*      | 75.5  | 82.3   | 521        |
|                                                  | France             | 2003*      | 75.9  | 82.9   | 5 977      |
|                                                  | Germany            | 2002-2004* | 75.89 | 81.55  | 8 253      |
|                                                  | Iceland            | 2001-2005* | 78.9  | 82.8   | 29         |
|                                                  | Italy              | 2002*      | 77.11 | 82.96  | 5 761      |
|                                                  | Netherlands        | 2004*      | 76.9  | 81.4   | 1 623      |
|                                                  | Norway             | 2005*      | 77.72 | 82.52  | 457        |
|                                                  | Poland             | 2004*      | 70.67 | 79.23  | 3 820      |
|                                                  | Russian Federation | 2003       | 58.8  | 72.0   | 14 457     |
|                                                  | Spain              | 2004*      | 77.2  | 83.8   | 4 187      |
|                                                  | Sweden             | 2005*      | 78.29 | 82.58  | 896        |
|                                                  | Switzerland        | 2004*      | 78.6  | 83.7   | 734        |
|                                                  | United Kingdom     | 2002-2004* | 76.26 | 80.73  | 5 955      |
| OCEANIA                                          | Australia          | 2003*      | 77.8  | 82.8   | 1 987      |
|                                                  | New Zealand        | 2003-2005* | 77.5  | 81.7   | 401        |

Reference: In Hong Kong of 2004, life expectancy at birth for males is 79.0 years, and that for females is 84.7 years. (population: 680 ten thousands)

Note: Population means by the mid-year estimate of 2003.

But population of Japan is Estimated Population at Oct.1, 2005

Source: Demographic Yearbook 2003, U.N., Recent demographic developments in Europe 2004, Council of Europe, etc.

\*Data offered from the government concerned.

#### IV. Analyses by cause of death

##### 1. Mortality probabilities by cause of death

Mortality probability by cause of death means the probability that a person at specific ages will die of specified cause of death in the future.

As for leading causes of death in 2005, the probability of malignant neoplasms is the largest for both sexes at age 0, followed by heart diseases, pneumonia, cerebrovascular diseases for males and H.C.P. for females.

The mortality probability of three leading causes of death (i.e. malignant neoplasms, heart diseases and cerebrovascular diseases) accounts for over 50 percent for both sexes.

**Table 7. Mortality probabilities by causes of death**

| Cause of death                                                                                              | Age 0 |        | Age 65 |        | Age 80 |        |
|-------------------------------------------------------------------------------------------------------------|-------|--------|--------|--------|--------|--------|
|                                                                                                             | Male  | Female | Male   | Female | Male   | Female |
| Malignant neoplasms                                                                                         | 29.88 | 20.54  | 29.30  | 18.63  | 22.44  | 14.64  |
| Heart diseases                                                                                              | 14.88 | 19.17  | 15.16  | 19.97  | 16.03  | 20.91  |
| Cerebrovascular diseases                                                                                    | 11.57 | 14.52  | 12.18  | 15.01  | 13.14  | 15.64  |
| Pneumonia                                                                                                   | 12.46 | 12.01  | 14.14  | 12.75  | 17.80  | 14.24  |
| Accidents                                                                                                   | 3.82  | 2.75   | 3.11   | 2.53   | 2.92   | 2.35   |
| Traffic accidents                                                                                           | 0.91  | 0.42   | 0.47   | 0.29   | 0.29   | 0.17   |
| Suicide                                                                                                     | 2.65  | 1.06   | 0.82   | 0.47   | 0.46   | 0.27   |
| Renal failure                                                                                               | 1.90  | 2.43   | 2.10   | 2.55   | 2.47   | 2.73   |
| Diseases of liver                                                                                           | 1.41  | 0.85   | 0.96   | 0.77   | 0.54   | 0.59   |
| Diabetes mellitus                                                                                           | 1.08  | 1.17   | 1.03   | 1.18   | 0.81   | 1.06   |
| Hypertensive diseases                                                                                       | 0.44  | 0.92   | 0.48   | 0.98   | 0.58   | 1.10   |
| Tuberculosis                                                                                                | 0.29  | 0.14   | 0.30   | 0.14   | 0.34   | 0.14   |
| Senility                                                                                                    | 2.02  | 6.17   | 2.36   | 6.63   | 3.55   | 7.96   |
| Three leading causes of death<br>(i.e. malignant neoplasms, heart diseases<br>and cerebrovascular diseases) | 56.33 | 54.23  | 56.63  | 53.61  | 51.62  | 51.20  |

## 2. Potential years of life lost

Assuming that a certain cause of death is eliminated, a person, who should have died of that cause, would die of another cause afterwards. As a result, one's life span would be extended. This extension, which is called the potential years of life lost of the cause, can be regarded as one's life lost by that cause of death, and it enable us to estimate the effect of that cause to one's life expectancy.

In 2005, the ranking of causes by potential years of life lost at age 0 is the 1st malignant neoplasms, the 2nd heart diseases, the 3rd cerebrovascular diseases, and the 4th pneumonia for both sexes.

Potential years of life lost by the three leading causes of death are 8.49 years for male and 7.68 years for female at age 0, 6.85 years for male and 6.39 years for female at age 65, 4.28 years for male and 4.84 years for female at age 80.

**Table 8. Potential years of life lost**

| Cause of death                                                                                              | Age 0 |        | Age 65 |        | Age 80 |        |
|-------------------------------------------------------------------------------------------------------------|-------|--------|--------|--------|--------|--------|
|                                                                                                             | Male  | Female | Male   | Female | Male   | Female |
| Malignant neoplasms                                                                                         | 4.00  | 3.02   | 3.07   | 2.03   | 1.45   | 1.07   |
| Heart diseases                                                                                              | 1.60  | 1.73   | 1.22   | 1.63   | 0.92   | 1.43   |
| Cerebrovascular diseases                                                                                    | 1.13  | 1.29   | 0.95   | 1.19   | 0.75   | 1.03   |
| Pneumonia                                                                                                   | 0.94  | 0.88   | 0.99   | 0.89   | 1.02   | 0.89   |
| Accidents                                                                                                   | 0.66  | 0.38   | 0.25   | 0.22   | 0.16   | 0.15   |
| Traffic accidents                                                                                           | 0.25  | 0.11   | 0.05   | 0.04   | 0.02   | 0.02   |
| Suicide                                                                                                     | 0.78  | 0.34   | 0.09   | 0.06   | 0.03   | 0.02   |
| Renal failure                                                                                               | 0.15  | 0.18   | 0.14   | 0.18   | 0.13   | 0.16   |
| Diseases of liver                                                                                           | 0.25  | 0.12   | 0.10   | 0.08   | 0.03   | 0.04   |
| Diabetes mellitus                                                                                           | 0.13  | 0.12   | 0.09   | 0.11   | 0.05   | 0.07   |
| Hypertensive diseases                                                                                       | 0.03  | 0.06   | 0.03   | 0.06   | 0.03   | 0.06   |
| Tuberculosis                                                                                                | 0.03  | 0.02   | 0.02   | 0.02   | 0.02   | 0.01   |
| Three leading causes of death<br>(i.e. malignant neoplasms, heart diseases<br>and cerebrovascular diseases) | 8.49  | 7.68   | 6.85   | 6.39   | 4.28   | 4.84   |

**Table A.Abridged life tables for Japan 2005**

**Male**

| age<br>$x$ | death rate<br>$nq_x$ | number of<br>survivors<br>$l_x$ | number of<br>deaths<br>$nd_x$ | stationary population |           | life<br>expectancy<br>$e_x$ |
|------------|----------------------|---------------------------------|-------------------------------|-----------------------|-----------|-----------------------------|
|            |                      |                                 |                               | $nL_x$                | $T_x$     |                             |
| 0 (W)      | 0.00111              | 100 000                         | 111                           | 1 915                 | 7 853 104 | 78.53                       |
| 1          | 0.00017              | 99 889                          | 17                            | 1 914                 | 7 851 189 | 78.60                       |
| 2          | 0.00013              | 99 872                          | 13                            | 1 914                 | 7 849 274 | 78.59                       |
| 3          | 0.00010              | 99 859                          | 10                            | 1 914                 | 7 847 360 | 78.58                       |
| 4          | 0.00028              | 99 849                          | 28                            | 8 986                 | 7 845 447 | 78.57                       |
| 2 (M)      | 0.00022              | 99 821                          | 22                            | 8 318                 | 7 836 461 | 78.51                       |
| 3          | 0.00050              | 99 799                          | 50                            | 24 943                | 7 828 144 | 78.44                       |
| 6          | 0.00048              | 99 749                          | 48                            | 49 860                | 7 803 200 | 78.23                       |
| 0 (Y)      | 0.00298              | 100 000                         | 298                           | 99 764                | 7 853 104 | 78.53                       |
| 1          | 0.00045              | 99 702                          | 44                            | 99 680                | 7 753 340 | 77.77                       |
| 2          | 0.00031              | 99 657                          | 31                            | 99 642                | 7 653 660 | 76.80                       |
| 3          | 0.00022              | 99 626                          | 22                            | 99 615                | 7 554 018 | 75.82                       |
| 4          | 0.00016              | 99 605                          | 16                            | 99 596                | 7 454 403 | 74.84                       |
| 5          | 0.00014              | 99 589                          | 14                            | 99 581                | 7 354 807 | 73.85                       |
| 6          | 0.00015              | 99 574                          | 14                            | 99 567                | 7 255 226 | 72.86                       |
| 7          | 0.00014              | 99 560                          | 14                            | 99 553                | 7 155 659 | 71.87                       |
| 8          | 0.00013              | 99 546                          | 13                            | 99 539                | 7 056 106 | 70.88                       |
| 9          | 0.00011              | 99 533                          | 11                            | 99 527                | 6 956 567 | 69.89                       |
| 10         | 0.00009              | 99 522                          | 9                             | 99 517                | 6 857 040 | 68.90                       |
| 11         | 0.00009              | 99 513                          | 9                             | 99 508                | 6 757 523 | 67.91                       |
| 12         | 0.00010              | 99 504                          | 10                            | 99 499                | 6 658 014 | 66.91                       |
| 13         | 0.00014              | 99 494                          | 13                            | 99 487                | 6 558 515 | 65.92                       |
| 14         | 0.00018              | 99 480                          | 18                            | 99 472                | 6 459 028 | 64.93                       |
| 15         | 0.00023              | 99 462                          | 23                            | 99 452                | 6 359 556 | 63.94                       |
| 16         | 0.00028              | 99 440                          | 28                            | 99 426                | 6 260 105 | 62.95                       |
| 17         | 0.00035              | 99 412                          | 35                            | 99 395                | 6 160 678 | 61.97                       |
| 18         | 0.00043              | 99 377                          | 43                            | 99 356                | 6 061 283 | 60.99                       |
| 19         | 0.00050              | 99 334                          | 50                            | 99 310                | 5 961 927 | 60.02                       |
| 20         | 0.00056              | 99 284                          | 55                            | 99 257                | 5 862 618 | 59.05                       |
| 21         | 0.00059              | 99 229                          | 59                            | 99 200                | 5 763 360 | 58.08                       |
| 22         | 0.00061              | 99 170                          | 61                            | 99 140                | 5 664 160 | 57.12                       |
| 23         | 0.00063              | 99 109                          | 63                            | 99 078                | 5 565 020 | 56.15                       |
| 24         | 0.00064              | 99 047                          | 63                            | 99 015                | 5 465 942 | 55.19                       |
| 25         | 0.00064              | 98 984                          | 63                            | 98 952                | 5 366 927 | 54.22                       |
| 26         | 0.00065              | 98 920                          | 64                            | 98 888                | 5 267 975 | 53.25                       |
| 27         | 0.00066              | 98 856                          | 66                            | 98 824                | 5 169 087 | 52.29                       |
| 28         | 0.00069              | 98 791                          | 68                            | 98 757                | 5 070 263 | 51.32                       |
| 29         | 0.00072              | 98 722                          | 71                            | 98 687                | 4 971 507 | 50.36                       |
| 30         | 0.00074              | 98 651                          | 73                            | 98 615                | 4 872 820 | 49.39                       |
| 31         | 0.00076              | 98 578                          | 75                            | 98 541                | 4 774 205 | 48.43                       |
| 32         | 0.00079              | 98 504                          | 78                            | 98 465                | 4 675 664 | 47.47                       |
| 33         | 0.00085              | 98 426                          | 84                            | 98 384                | 4 577 199 | 46.50                       |
| 34         | 0.00092              | 98 342                          | 90                            | 98 298                | 4 478 815 | 45.54                       |
| 35         | 0.00098              | 98 252                          | 97                            | 98 204                | 4 380 517 | 44.58                       |
| 36         | 0.00105              | 98 155                          | 103                           | 98 104                | 4 282 313 | 43.63                       |
| 37         | 0.00112              | 98 052                          | 110                           | 97 998                | 4 184 209 | 42.67                       |
| 38         | 0.00121              | 97 942                          | 118                           | 97 884                | 4 086 211 | 41.72                       |
| 39         | 0.00132              | 97 824                          | 129                           | 97 760                | 3 988 327 | 40.77                       |
| 40         | 0.00144              | 97 695                          | 140                           | 97 625                | 3 890 567 | 39.82                       |
| 41         | 0.00155              | 97 554                          | 151                           | 97 480                | 3 792 941 | 38.88                       |
| 42         | 0.00168              | 97 403                          | 164                           | 97 322                | 3 695 461 | 37.94                       |
| 43         | 0.00185              | 97 239                          | 180                           | 97 151                | 3 598 139 | 37.00                       |
| 44         | 0.00205              | 97 059                          | 199                           | 96 962                | 3 500 989 | 36.07                       |
| 45         | 0.00227              | 96 861                          | 219                           | 96 753                | 3 404 027 | 35.14                       |
| 46         | 0.00250              | 96 641                          | 242                           | 96 522                | 3 307 274 | 34.22                       |
| 47         | 0.00273              | 96 399                          | 263                           | 96 269                | 3 210 752 | 33.31                       |
| 48         | 0.00297              | 96 136                          | 286                           | 95 995                | 3 114 483 | 32.40                       |
| 49         | 0.00326              | 95 850                          | 312                           | 95 697                | 3 018 488 | 31.49                       |

| age  | death rate | number of survivors | number of deaths | stationary population |           | Male life expectancy |
|------|------------|---------------------|------------------|-----------------------|-----------|----------------------|
|      |            |                     |                  | $nL_x$                | $T_x$     | ${}^{\circ}e_x$      |
| 50   | 0.00358    | 95 538              | 342              | 95 370                | 2 922 791 | 30.59                |
| 51   | 0.00394    | 95 196              | 375              | 95 012                | 2 827 421 | 29.70                |
| 52   | 0.00434    | 94 821              | 412              | 94 618                | 2 732 410 | 28.82                |
| 53   | 0.00478    | 94 409              | 451              | 94 187                | 2 637 791 | 27.94                |
| 54   | 0.00527    | 93 958              | 496              | 93 714                | 2 543 604 | 27.07                |
| 55   | 0.00584    | 93 463              | 546              | 93 194                | 2 449 890 | 26.21                |
| 56   | 0.00642    | 92 917              | 597              | 92 623                | 2 356 695 | 25.36                |
| 57   | 0.00699    | 92 321              | 645              | 92 002                | 2 264 072 | 24.52                |
| 58   | 0.00760    | 91 675              | 696              | 91 331                | 2 172 070 | 23.69                |
| 59   | 0.00824    | 90 979              | 750              | 90 608                | 2 080 739 | 22.87                |
| 60   | 0.00894    | 90 229              | 807              | 89 830                | 1 990 130 | 22.06                |
| 61   | 0.00969    | 89 422              | 867              | 88 994                | 1 900 300 | 21.25                |
| 62   | 0.01047    | 88 555              | 927              | 88 097                | 1 811 306 | 20.45                |
| 63   | 0.01121    | 87 629              | 982              | 87 142                | 1 723 209 | 19.66                |
| 64   | 0.01201    | 86 646              | 1 041            | 86 131                | 1 636 067 | 18.88                |
| 65   | 0.01292    | 85 606              | 1 106            | 85 058                | 1 549 936 | 18.11                |
| 66   | 0.01401    | 84 499              | 1 184            | 83 915                | 1 464 877 | 17.34                |
| 67   | 0.01540    | 83 315              | 1 283            | 82 683                | 1 380 963 | 16.58                |
| 68   | 0.01711    | 82 032              | 1 404            | 81 341                | 1 298 280 | 15.83                |
| 69   | 0.01913    | 80 628              | 1 543            | 79 869                | 1 216 939 | 15.09                |
| 70   | 0.02138    | 79 086              | 1 690            | 78 253                | 1 137 070 | 14.38                |
| 71   | 0.02383    | 77 395              | 1 845            | 76 486                | 1 058 817 | 13.68                |
| 72   | 0.02640    | 75 550              | 1 995            | 74 566                | 982 331   | 13.00                |
| 73   | 0.02919    | 73 556              | 2 147            | 72 495                | 907 766   | 12.34                |
| 74   | 0.03230    | 71 409              | 2 306            | 70 269                | 835 270   | 11.70                |
| 75   | 0.03578    | 69 103              | 2 472            | 67 880                | 765 001   | 11.07                |
| 76   | 0.03969    | 66 630              | 2 645            | 65 322                | 697 121   | 10.46                |
| 77   | 0.04407    | 63 986              | 2 820            | 62 590                | 631 798   | 9.87                 |
| 78   | 0.04896    | 61 166              | 2 995            | 59 683                | 569 208   | 9.31                 |
| 79   | 0.05441    | 58 171              | 3 165            | 56 602                | 509 525   | 8.76                 |
| 80   | 0.06031    | 55 006              | 3 317            | 53 359                | 452 923   | 8.23                 |
| 81   | 0.06690    | 51 689              | 3 458            | 49 970                | 399 564   | 7.73                 |
| 82   | 0.07396    | 48 231              | 3 567            | 46 455                | 349 593   | 7.25                 |
| 83   | 0.08178    | 44 664              | 3 652            | 42 844                | 303 138   | 6.79                 |
| 84   | 0.09067    | 41 011              | 3 719            | 39 157                | 260 294   | 6.35                 |
| 85   | 0.10077    | 37 293              | 3 758            | 35 416                | 221 138   | 5.93                 |
| 86   | 0.11204    | 33 535              | 3 757            | 31 654                | 185 722   | 5.54                 |
| 87   | 0.12413    | 29 778              | 3 696            | 27 921                | 154 068   | 5.17                 |
| 88   | 0.13657    | 26 081              | 3 562            | 24 286                | 126 147   | 4.84                 |
| 89   | 0.14956    | 22 519              | 3 368            | 20 817                | 101 860   | 4.52                 |
| 90   | 0.16312    | 19 151              | 3 124            | 17 567                | 81 043    | 4.23                 |
| 91   | 0.17726    | 16 028              | 2 841            | 14 582                | 63 476    | 3.96                 |
| 92   | 0.19200    | 13 186              | 2 532            | 11 894                | 48 894    | 3.71                 |
| 93   | 0.20734    | 10 655              | 2 209            | 9 523                 | 37 000    | 3.47                 |
| 94   | 0.22328    | 8 446               | 1 886            | 7 476                 | 27 477    | 3.25                 |
| 95   | 0.23984    | 6 560               | 1 573            | 5 748                 | 20 001    | 3.05                 |
| 96   | 0.25700    | 4 987               | 1 282            | 4 323                 | 14 253    | 2.86                 |
| 97   | 0.27479    | 3 705               | 1 018            | 3 175                 | 9 930     | 2.68                 |
| 98   | 0.29318    | 2 687               | 788              | 2 275                 | 6 755     | 2.51                 |
| 99   | 0.31217    | 1 899               | 593              | 1 588                 | 4 480     | 2.36                 |
| 100- | 1.00000    | 1 306               | 1 306            | 2 892                 | 2 892     | 2.21                 |

**Table A.Abridged life tables for Japan 2005**

**Female**

| age<br>$x$ | death rate<br>$nq_x$ | number of<br>survivors<br>$l_x$ | number of<br>deaths<br>$nd_x$ | stationary population |           | life<br>expectancy<br>$e_x$ |
|------------|----------------------|---------------------------------|-------------------------------|-----------------------|-----------|-----------------------------|
|            |                      |                                 |                               | $nL_x$                | $T_x$     |                             |
| 0 (W)      | 0.00093              | 100 000                         | 93                            | 1 915                 | 8 548 580 | 85.49                       |
| 1          | 0.00021              | 99 907                          | 21                            | 1 914                 | 8 546 665 | 85.55                       |
| 2          | 0.00011              | 99 886                          | 11                            | 1 914                 | 8 544 750 | 85.55                       |
| 3          | 0.00008              | 99 875                          | 8                             | 1 914                 | 8 542 836 | 85.54                       |
| 4          | 0.00025              | 99 868                          | 25                            | 8 987                 | 8 540 922 | 85.52                       |
| 2 (M)      | 0.00015              | 99 843                          | 15                            | 8 320                 | 8 531 934 | 85.45                       |
| 3          | 0.00039              | 99 828                          | 39                            | 24 952                | 8 523 615 | 85.38                       |
| 6          | 0.00041              | 99 789                          | 41                            | 49 882                | 8 498 662 | 85.17                       |
| 0 (Y)      | 0.00252              | 100 000                         | 252                           | 99 800                | 8 548 580 | 85.49                       |
| 1          | 0.00034              | 99 748                          | 34                            | 99 730                | 8 448 780 | 84.70                       |
| 2          | 0.00025              | 99 714                          | 25                            | 99 702                | 8 349 050 | 83.73                       |
| 3          | 0.00018              | 99 689                          | 18                            | 99 680                | 8 249 348 | 82.75                       |
| 4          | 0.00013              | 99 671                          | 13                            | 99 664                | 8 149 669 | 81.77                       |
| 5          | 0.00011              | 99 658                          | 11                            | 99 653                | 8 050 004 | 80.78                       |
| 6          | 0.00009              | 99 647                          | 9                             | 99 643                | 7 950 352 | 79.78                       |
| 7          | 0.00009              | 99 638                          | 9                             | 99 634                | 7 850 709 | 78.79                       |
| 8          | 0.00008              | 99 629                          | 8                             | 99 625                | 7 751 075 | 77.80                       |
| 9          | 0.00007              | 99 621                          | 7                             | 99 618                | 7 651 450 | 76.81                       |
| 10         | 0.00007              | 99 614                          | 7                             | 99 611                | 7 551 832 | 75.81                       |
| 11         | 0.00006              | 99 607                          | 6                             | 99 604                | 7 452 222 | 74.82                       |
| 12         | 0.00007              | 99 601                          | 7                             | 99 598                | 7 352 617 | 73.82                       |
| 13         | 0.00008              | 99 594                          | 8                             | 99 590                | 7 253 020 | 72.83                       |
| 14         | 0.00010              | 99 586                          | 10                            | 99 581                | 7 153 429 | 71.83                       |
| 15         | 0.00012              | 99 576                          | 12                            | 99 570                | 7 053 848 | 70.84                       |
| 16         | 0.00014              | 99 564                          | 14                            | 99 557                | 6 954 278 | 69.85                       |
| 17         | 0.00018              | 99 550                          | 17                            | 99 541                | 6 854 721 | 68.86                       |
| 18         | 0.00021              | 99 532                          | 21                            | 99 522                | 6 755 179 | 67.87                       |
| 19         | 0.00024              | 99 512                          | 24                            | 99 500                | 6 655 657 | 66.88                       |
| 20         | 0.00026              | 99 488                          | 26                            | 99 475                | 6 556 157 | 65.90                       |
| 21         | 0.00028              | 99 462                          | 28                            | 99 448                | 6 456 682 | 64.92                       |
| 22         | 0.00030              | 99 434                          | 30                            | 99 419                | 6 357 234 | 63.93                       |
| 23         | 0.00032              | 99 404                          | 32                            | 99 388                | 6 257 815 | 62.95                       |
| 24         | 0.00032              | 99 372                          | 32                            | 99 356                | 6 158 427 | 61.97                       |
| 25         | 0.00031              | 99 340                          | 31                            | 99 324                | 6 059 071 | 60.99                       |
| 26         | 0.00030              | 99 309                          | 30                            | 99 294                | 5 959 747 | 60.01                       |
| 27         | 0.00031              | 99 279                          | 31                            | 99 264                | 5 860 453 | 59.03                       |
| 28         | 0.00032              | 99 248                          | 32                            | 99 232                | 5 761 190 | 58.05                       |
| 29         | 0.00035              | 99 216                          | 34                            | 99 199                | 5 661 957 | 57.07                       |
| 30         | 0.00037              | 99 182                          | 37                            | 99 164                | 5 562 758 | 56.09                       |
| 31         | 0.00040              | 99 145                          | 39                            | 99 126                | 5 463 594 | 55.11                       |
| 32         | 0.00042              | 99 106                          | 42                            | 99 085                | 5 364 468 | 54.13                       |
| 33         | 0.00045              | 99 064                          | 45                            | 99 042                | 5 265 383 | 53.15                       |
| 34         | 0.00049              | 99 019                          | 49                            | 98 995                | 5 166 341 | 52.18                       |
| 35         | 0.00053              | 98 970                          | 52                            | 98 944                | 5 067 346 | 51.20                       |
| 36         | 0.00056              | 98 918                          | 56                            | 98 891                | 4 968 402 | 50.23                       |
| 37         | 0.00060              | 98 862                          | 59                            | 98 833                | 4 869 511 | 49.26                       |
| 38         | 0.00064              | 98 803                          | 64                            | 98 772                | 4 770 678 | 48.28                       |
| 39         | 0.00070              | 98 739                          | 69                            | 98 706                | 4 671 906 | 47.32                       |
| 40         | 0.00075              | 98 671                          | 74                            | 98 634                | 4 573 201 | 46.35                       |
| 41         | 0.00081              | 98 597                          | 80                            | 98 557                | 4 474 567 | 45.38                       |
| 42         | 0.00087              | 98 517                          | 86                            | 98 475                | 4 376 009 | 44.42                       |
| 43         | 0.00094              | 98 431                          | 92                            | 98 386                | 4 277 535 | 43.46                       |
| 44         | 0.00103              | 98 339                          | 101                           | 98 289                | 4 179 149 | 42.50                       |
| 45         | 0.00113              | 98 238                          | 111                           | 98 184                | 4 080 859 | 41.54                       |
| 46         | 0.00124              | 98 127                          | 121                           | 98 068                | 3 982 676 | 40.59                       |
| 47         | 0.00135              | 98 006                          | 132                           | 97 941                | 3 884 608 | 39.64                       |
| 48         | 0.00147              | 97 874                          | 144                           | 97 803                | 3 786 667 | 38.69                       |
| 49         | 0.00161              | 97 730                          | 158                           | 97 653                | 3 688 864 | 37.75                       |

**Female**

| age  | death rate | number of survivors | number of deaths | stationary population |           | life expectancy |
|------|------------|---------------------|------------------|-----------------------|-----------|-----------------|
|      |            |                     |                  | $nL_x$                | $T_x$     |                 |
| $x$  | $nq_x$     | $l_x$               | $nd_x$           |                       |           | $e_x$           |
| 50   | 0.00177    | 97 573              | 172              | 97 488                | 3 591 211 | 36.81           |
| 51   | 0.00192    | 97 401              | 187              | 97 308                | 3 493 723 | 35.87           |
| 52   | 0.00209    | 97 213              | 203              | 97 113                | 3 396 415 | 34.94           |
| 53   | 0.00226    | 97 010              | 219              | 96 902                | 3 299 302 | 34.01           |
| 54   | 0.00245    | 96 791              | 237              | 96 674                | 3 202 401 | 33.09           |
| 55   | 0.00266    | 96 554              | 257              | 96 427                | 3 105 727 | 32.17           |
| 56   | 0.00288    | 96 296              | 278              | 96 159                | 3 009 300 | 31.25           |
| 57   | 0.00306    | 96 019              | 294              | 95 873                | 2 913 141 | 30.34           |
| 58   | 0.00323    | 95 725              | 310              | 95 571                | 2 817 268 | 29.43           |
| 59   | 0.00343    | 95 415              | 327              | 95 253                | 2 721 696 | 28.52           |
| 60   | 0.00366    | 95 088              | 348              | 94 916                | 2 626 443 | 27.62           |
| 61   | 0.00394    | 94 740              | 373              | 94 556                | 2 531 528 | 26.72           |
| 62   | 0.00427    | 94 367              | 403              | 94 168                | 2 436 972 | 25.82           |
| 63   | 0.00460    | 93 964              | 432              | 93 751                | 2 342 804 | 24.93           |
| 64   | 0.00495    | 93 532              | 463              | 93 304                | 2 249 053 | 24.05           |
| 65   | 0.00538    | 93 069              | 501              | 92 822                | 2 155 750 | 23.16           |
| 66   | 0.00590    | 92 568              | 546              | 92 299                | 2 062 928 | 22.29           |
| 67   | 0.00649    | 92 022              | 597              | 91 727                | 1 970 629 | 21.41           |
| 68   | 0.00717    | 91 424              | 655              | 91 102                | 1 878 901 | 20.55           |
| 69   | 0.00798    | 90 769              | 724              | 90 413                | 1 787 799 | 19.70           |
| 70   | 0.00893    | 90 045              | 804              | 89 650                | 1 697 386 | 18.85           |
| 71   | 0.01005    | 89 241              | 896              | 88 801                | 1 607 736 | 18.02           |
| 72   | 0.01129    | 88 344              | 998              | 87 854                | 1 518 935 | 17.19           |
| 73   | 0.01265    | 87 347              | 1 105            | 86 803                | 1 431 081 | 16.38           |
| 74   | 0.01415    | 86 242              | 1 220            | 85 642                | 1 344 278 | 15.59           |
| 75   | 0.01583    | 85 022              | 1 346            | 84 360                | 1 258 636 | 14.80           |
| 76   | 0.01772    | 83 676              | 1 483            | 82 946                | 1 174 276 | 14.03           |
| 77   | 0.01985    | 82 193              | 1 631            | 81 391                | 1 091 330 | 13.28           |
| 78   | 0.02235    | 80 562              | 1 800            | 79 677                | 1 009 939 | 12.54           |
| 79   | 0.02542    | 78 761              | 2 002            | 77 779                | 930 262   | 11.81           |
| 80   | 0.02911    | 76 759              | 2 234            | 75 663                | 852 484   | 11.11           |
| 81   | 0.03362    | 74 525              | 2 505            | 73 296                | 776 821   | 10.42           |
| 82   | 0.03875    | 72 020              | 2 791            | 70 648                | 703 524   | 9.77            |
| 83   | 0.04437    | 69 229              | 3 072            | 67 716                | 632 876   | 9.14            |
| 84   | 0.05054    | 66 157              | 3 344            | 64 508                | 565 160   | 8.54            |
| 85   | 0.05752    | 62 814              | 3 613            | 61 029                | 500 652   | 7.97            |
| 86   | 0.06556    | 59 200              | 3 881            | 57 282                | 439 623   | 7.43            |
| 87   | 0.07478    | 55 319              | 4 137            | 53 271                | 382 341   | 6.91            |
| 88   | 0.08515    | 51 183              | 4 358            | 49 019                | 329 069   | 6.43            |
| 89   | 0.09608    | 46 825              | 4 499            | 44 583                | 280 050   | 5.98            |
| 90   | 0.10735    | 42 326              | 4 544            | 40 055                | 235 467   | 5.56            |
| 91   | 0.11983    | 37 782              | 4 527            | 35 515                | 195 412   | 5.17            |
| 92   | 0.13463    | 33 255              | 4 477            | 31 008                | 159 897   | 4.81            |
| 93   | 0.14902    | 28 778              | 4 289            | 26 613                | 128 889   | 4.48            |
| 94   | 0.16388    | 24 489              | 4 013            | 22 456                | 102 276   | 4.18            |
| 95   | 0.17922    | 20 476              | 3 670            | 18 610                | 79 819    | 3.90            |
| 96   | 0.19502    | 16 806              | 3 278            | 15 133                | 61 210    | 3.64            |
| 97   | 0.21130    | 13 528              | 2 859            | 12 064                | 46 076    | 3.41            |
| 98   | 0.22805    | 10 670              | 2 433            | 9 418                 | 34 013    | 3.19            |
| 99   | 0.24526    | 8 237               | 2 020            | 7 193                 | 24 595    | 2.99            |
| 100- | 1.00000    | 6 217               | 6 217            | 17 402                | 17 402    | 2.80            |