

## Population Projections for Japan (2017): 2016 to 2065

### Appendix: Auxiliary Projections 2066 to 2115

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# Population Projections for Japan (2017)

Based on the latest results from the Population Census of Japan and the Vital Statistics of Japan, the National Institute of Population and Social Security Research in Japan (IPSS) has conducted a new national population projection exercise (Population Projections for Japan). This is the 15th release of national population projections by the Institute, including the period before the integration of the Institute of Population Problems and the Social Development Research Institute.

## I Introduction

The Population Projections for Japan project the size and structure of the population into the future based on assumptions on future fertility, mortality, and international migration levels. Given that future changes in fertility, mortality, and international migration cannot be known with certainty, the IPSS projections provide a well-defined range of likely future population developments by computing variants based on alternative scenarios.

The projections cover the total population living in Japan, including non-Japanese residents. This is the same framework that is used by the Population Census of Japan. The period of the projections begins with the 2015 Population Census and continues until 2065, projecting the population as of October 1 for each year. Additionally, we extended the population calculations up to 2115 and added these as long-range auxiliary projections.

The method of projection is as follows: we set assumptions on individual components of population dynamics, i.e., birth, death, and international migration, by sex and age, and projected the population demographic trends by sex and age into the future using the cohort component method. Assumptions are made based on actual statistics for each component using the demographic method. (For further details, refer to section "III Summary of the Method Used for Population Projections.")

## II Summary of Population Trends

The Population Projection for Japan is based on three alternative assumptions about future changes in both fertility and mortality (a low, medium, and high variant of each), resulting in a total of nine projections—one for each combination of these variants. Hereafter, the outline of the results of the three projections combining the three assumptions on fertility with the medium variant assumption for mortality will be presented first, followed by an outline of the results of the three assumptions of fertility combined with the high- and low-mortality assumptions. In the following descriptions, each projection is referred to by the combination of its respective fertility and mortality assumptions, e.g., medium-fertility (medium-mortality) projection.

### A. The Results of Projections According to the Three Fertility Variants with the Medium-Mortality Assumption

#### 1. Population Size and Growth

According to the 2015 Population Census, which serves as the base year for these projections, the total population of Japan in that year was 127.09 million (total population including non-Japanese residents). Based on the results of the medium-fertility projection, Japan is expected to enter a long period of population decline. The population is expected to decrease to around 110.92 million by 2040, fall below 100 million to 99.24 million by 2053, and drop to 88.08 million by 2065 (see Table 1-1 and Figure 1-1).

Based on the results of the high-fertility projection, the total population is expected to drop below the 100 million mark to 99.52 million by 2059, and to decrease further to 94.90 million by 2065 (see Table 1-2 and Figure 1-1).

Conversely, based on the low-fertility projection, the total population is expected to fall below 100 million by 2049 and to decline to 82.13 million by 2065 (see Table 1-3 and Figure 1-1).

In comparison with the results for the previous projection (2065 by the long-range auxiliary projection), the total population increased by 6.72 million from 81.35 million to 88.08 million, and the year that the total population decreased to below 100 million was delayed by 5 years from 2048 to 2053 for the medium-fertility variant.

## **2. Population Age Composition**

### **(1) Trends in the Young-age Population under 15 and its Share of the Population**

The annual number of births in Japan (Japanese) has declined from 2.09 million in 1973 to 1.01 million in 2015. Consequently, the population of children under the age of 15 (young-age population) has also decreased from 27 million in the early 1980s to 15.95 million, as recorded in the 2015 Population Census.

According to the medium-fertility projection, the population size of this age group will fall to the 14 million mark by 2021 (see Table 1-1 and Figure 1-3). The decline will continue and the population of this age group is expected to fall below 10 million by 2056, eventually decreasing to around 8.98 million by 2065.

Looking at the different trends in the number of children in the high- and low-fertility projections, this age group is expected to be on the decline even in the high-fertility projection and will reach 11.59 million by 2065 (see Table 1-2). The low-fertility projection leads to a more rapid decline in the size of this age group; it is projected that this demographic group will shrink to below 10 million by 2044, and eventually decrease to as little as 6.84 million by 2065 (see Table 1-3).

Examining the declines of the young-age population in terms of the percentage of the total population, according to the medium-fertility projection, the share is expected to continue to shrink from 12.5% as of 2015 to 12.0% by 2020, drop to 11.0% by 2031, and eventually decrease to 10.2% by 2065 (see Table 1-1 and Figure 1-4).

The high-fertility projection shows a somewhat slower decline in the percentage of children, falling to 12.0% by 2041 and reaching 12.2% by 2065 (see Table 1-2).

The decline in the children's share of the population is of course rapid in the low-fertility projection, falling to 12.0% by 2019, falling below 10% by 2030, and ultimately dropping to 8.3% by 2065 (see Table 1-3).

### **(2) Trends in the Working-age Population (aged 15 to 64 years) and its Share of the Population**

The population of the working-age group (from 15 to 64 years of age) increased consistently during the post-war years, reaching its peak at 87.26 million in the 1995 Population Census. However, since then, it has entered a period of decline and, according to the 2015 Population Census, the population has fallen to 77.28 million.

According to the results of the medium-fertility projection, the population of this age group is expected to continue to decrease to below 70 million by 2029, below 60 million by 2040, below 50 million by 2056, and will eventually drop to 45.29 million by 2065 (see Table 1-1 and Figure 1-3).

According to the projections based on the high- and low-fertility assumptions, until 2030, the working-age population trends exhibit the same overall behavior as those based on the medium-fertility assumptions. After 2030, the depopulation of this age group is expected to be slower in the high-fertility projection, not dropping below 50 million until 2064 and reaching 49.50 million by 2065 (see Table 12). According to the low-fertility projection, the working-age population is expected to decrease more rapidly, failing to below 50 million by 2051 and reaching 41.47 million by 2065 (see Table 1-3).

Looking at the proportion of the population in the working-age group, according to the medium-fertility projection, the proportion will continue to fall from its 2015 share of 60.8%, declining to below 60.0% by 2017, and eventually declining to 51.4% by 2065 (see Table 1-1 and Figure 1-4).

Similarly, in the high-fertility projection, the population share of the working-age group shows a constant decline from the start of the projection period, reaching 52.2% by 2065, just one percentage point higher than the result of the medium-fertility projection.

In the low-fertility projection, the proportion of this age group out of the overall population will be 50.5% by 2065, and about one percentage point lower than the projection based on the medium-fertility assumptions.

### **(3) Trends in the Old-age Population (65 years of age and over) and its Share of the Population**

The trends exhibited by the old-age population (65 years of age and over) will be identical for all three fertility variant assumptions throughout the projection period of 50 years if the assumption of mortality is the same. That is, this age group will grow from 33.87 million as of 2015 to 36.19 million by 2020 (see Table 1-1, Table 1-2, Table 1-3, and Figure 1-3). It will then enter a period of modest increase for some time, reaching 37.16 million by 2030, and will peak by 2042, reaching to 39.35 million when the second baby-boom cohort enter this age group. The trend will subsequently shift to a steady decrease and the size of the age group will ultimately reach 33.81 million by 2065.

Looking at the proportion of the elderly out of the entire population, the share will increase from the current level of 26.6% as of 2015, meaning that more than one in four people in Japan will be elderly. By 2036, 33.3% of the total population, corresponding to one in three people, will be elderly, and 50 years after the start of projection period, in 2065, the elderly will account for no less than 38.4%, i.e., one in 2.6 people, according to the medium-fertility projection (see Table 1-1 and Figure 1-2).

The results of the high-fertility projections show that the share will be 33.6%, i.e., one in three people, by 2038 and 35.6% by 2065, i.e., one in 2.8 people in Japan will be elderly (see Table 1-2 and Figure 1-2).

In the low-fertility projections, the share will be 33.4% by 2035, i.e., one in three people, and 41.2% by 2065, i.e., one in 2.4 people in Japan will be elderly (see Table 1-3 and Figure 1-2).

A comparison of the results of the high- and low-fertility projections show that the variation in the aging trend, brought about by different assumptions of fertility rates, amounts to a difference of 1.7 percentage points by 2040, from 36.2% in the low-fertility projection to 34.5% in the high-fertility projection. Thereafter, this difference grows wider, resulting in a difference of 5.6 percentage points by 2065, where the low-fertility figure is 41.2% as opposed to the high-fertility figure of 35.6% (Figure 1-2).

As already noted, the elderly population will peak at 2042 and decrease thereafter. Nevertheless, according to both the medium- and low-fertility assumptions, the proportion of the elderly generation will continue to rise throughout the coming 50 years. This occurs because the child and working-age populations decrease faster throughout the period covered by the projections than the elderly age group.

In comparison with the results for the previous projection (2065 by the long-range auxiliary projection), the elderly population increased by 0.94 million from 32.87 million to 33.81 million and the share decreased by 2.0% points from 40.4% to 38.4% for the medium-fertility variant. The elderly population will peak by 2042. In the previous projection, the size of the elderly population is 38.78 million, whereas in the current projection the population size will be 39.35 million by 2042.

### **3. Age Dependency Ratios**

The (Total) age dependency ratio is an index that provides a rough indication of the level of support burden that is placed on the working-age group, through comparison of the relative size of the young-age population and old-age population groups with that of the working-age group. The old-age dependency ratio (the percentage of the old-age population relative to the population of the working-age group) based on the medium-fertility projection is projected to increase from 43.8 (an average of 2.3 workers supporting one senior resident) as of 2015 to 50.3 (two workers supporting one senior resident) by 2023,

and eventually reaching 74.6 (only 1.3 workers supporting one senior resident) by 2065 (see Table 1-4). In contrast, the young-age dependency ratio (the percentage of the young-age population relative to the working-age population) was at the level of 20.6 (an average of 4.8 workers supporting one child) as of 2015, and will remain in the range of 19 to 21 in the future. Despite the decrease in the young-age population due to low fertility, the young-age dependency ratio is not expected to decrease below a certain level, because the working-age population will also simultaneously shrink in size.

The value obtained by adding the young-age dependency ratio and the old-age dependency ratio is referred to as the total age dependency ratio, and is used to indicate the degree of burden placed on the working-age population to support the entire young-age/old-age population. According to the medium fertility projection, under the shrinking working-age population, the total age dependency ratio is expected to increase from 64.5 as of 2015, to 80.5 by 2037, and will eventually reach 94.5 by 2065.

The age dependency ratio based on the high-fertility projection will initially follow a trend that is higher than that of the medium-fertility projection, because the young-age dependency ratio will be larger. However, the ratio of the high-fertility projection will show a decrease below that of the medium-fertility projection by 2047 and beyond, and is expected to reach 91.7 by 2065. Conversely, the age dependency ratio based on the low-fertility projection will initially maintain a lower level than that of the projections based on the medium-fertility projection, but the relationship will eventually reverse by 2047, and will reach 98.0 by 2065.

#### **4. Changes in the Population Pyramid**

The population pyramid in Japan has significant irregularities due to acute fluctuations in past numbers of live births. For example, there was a decrease in the number of live births from 1945 to 1946 in line with the end of World War II, an increase known as the first baby boom from 1947 to 1949, a subsequent decrease from 1950 to 1957, and a sharp single-year drop in 1966 which corresponded to a period in the Chinese sexagenarian cycle that, owing to traditional beliefs, is accompanied by a sharp decline in birthrates. This was followed by a subsequent increase referred to as the second baby boom from 1971 to 1974, and a steady decrease thereafter (see Figure 1-5(1)).

In the population pyramid as of 2015, members of the first baby-boomer generation are in their late 60s and those of the second baby-boomer generation are in their early 40s. Looking at the subsequent evolution of this pyramid shape according to the medium-fertility projection, the first baby-boomers will be in their early 90s and the second baby-boomers in their late 60s in 2040. It can therefore be concluded that the aging of society toward 2040 is characterized by the entry of the first and the second baby-boomer generations into the aged population (see Figure 1-5(2)).

Thereafter, until 2065, the advancement of aging will reflect the fact that the population size of younger generations of all age brackets will decrease due to low fertility rates (see Figure 1-5 (3)).

### **B. The Results of Projections According to the Medium-Fertility Assumption with High- and Low-Mortality Assumptions**

#### **1. Summary of the Results of Projections with the High-Mortality Assumption**

The high-mortality projection assumes higher mortality rates compared to the medium-mortality projection, which indicates slower advancements in mortality improvement and an overall life expectancy that remains at a relatively lower level. Therefore, under the same assumptions on fertility, the number of deaths will reach higher levels and the size of population will remain at lower levels than in the medium-mortality projection throughout the projection period. That is, compared to the total population estimate of 88.08 million by 2065 based on the medium-fertility (medium-mortality) projection, the total population in the same year based on the medium-fertility (high-mortality) projection drops down to 86.40 million. Conversely, the population and demographics of the three major age groups based on the medium-fertility (high-mortality) projection are as follows: by 2065, the child

population (and the proportion thereof) will be 8.97 million (10.4%), the working-age population (and the proportion thereof) will be 45.19 million (52.3%), and the elderly population (and the proportion thereof) will be 32.25 million (37.3%). These projections are lower than the results of the medium-fertility (medium-mortality) projection, and both the size and proportion of the elderly population, in particular, are smaller (see Table 2-1 and Table 3-4).

## **2. Summary of the Results of Projections with the Low-Mortality Assumption**

The low-mortality projection assumes a lower mortality rate than compared to the medium-mortality projection, which indicates faster advancements in mortality improvement and a life expectancy that remains at a relatively high level. In this case, the number of deaths will be relatively small and the population will maintain a higher level under the same fertility assumptions. That is, compared to the total population as of 2065 based on the medium-fertility (medium-mortality) projection, 88.08 million, the total population in the same year based on the medium-fertility (low-mortality) projection will be 89.74 million. On the other hand, the trends of the size and proportion of the three major age groups based on the medium-fertility (low-mortality) projection can be summed up as follows: by 2065, the child population (and the proportion thereof) will be 8.98 million (10.0%), the working-age population (and the proportion thereof) will be 45.38 million (50.6%), and the elderly population (and the proportion thereof) will be 35.37 million (39.4%). These results are higher than the results of the medium-fertility (medium-mortality) projection, and the size and proportion of the elderly population, in particular, is larger (see Table 2-2 and Table 3-4).

## **C. The Results of Projections According to the High- and Low-Fertility Assumptions with High- and Low-Mortality Assumptions \***

In the Population Projections for Japan, we made four additional possible projections combining the high- and low-fertility assumptions and the high- and low-mortality assumptions in addition to the aforementioned projections. According to the high-fertility (low-mortality) projection, which results in the highest total population, the total population may potentially be as high as 96.57 million by 2065. Conversely, in the low-fertility (high-mortality) projection, which results in the lowest total population, the total population may be as low as 80.46 million in the same year (Table 3-1). Moreover, the proportion of the elderly population is 42.2% by 2065 according to the low-fertility (low-mortality) projection, which results in the highest proportion of the elderly population, while it is 34.6% in the same year according to the high fertility (high-mortality) projection, which results in the lowest proportion of the elderly population (Table 3-4).

\* The tables showing the main results of these projections are not included in this report. Please refer to the Website of the National Institute of Population and Social Security Research in Japan for these tables.

## **III Summary of the Method Used for Population Projections**

As in the previous projections, the cohort component method is used for the Population Projections for Japan. This is a method of projecting the future population of each age- and sex-specific group according to assumptions about three components of population change, namely fertility, mortality, and migration. Projecting the population using the cohort component method requires the following assumptions to be set for each sex and age group: (1) jump-off population, (2) future fertility rate (and the sex ratio at birth), (3) future survival rate, and (4) future international migration rates (numbers). In these projections, as in the past, we set these assumptions based on past trends for each component using the demographic method. Given that future changes in fertility and mortality cannot be known with certainty, we set

multiple assumptions and produced multiple possible projections based on these assumptions, to provide a well-defined range of population projections.

### **1. Jump-off Population**

For the jump-off population, which serves as the starting point of the projections, we used data on the total population by age and sex as of October 1, 2015. This was taken from the 2015 Population Census of Japan, which is compiled by the Statistics Bureau of the Ministry of Internal Affairs and Communications. This value was calculated by the Statistics Bureau of the Ministry of Internal Affairs and Communications as the jump-off population (as of October 1, 2015) in the 2015 Population Census by evenly distributing the population of "not reported" nationality and age included in the 2015 Population Census (the results of a basic complete tabulation on population and households) in order to project the future population based on the population obtained in the Population Census.

### **2. Assumptions for Fertility Rates and Sex Ratio at Birth**

Projecting the future number of births in the projections requires data on the female age-specific fertility rate of the year in question. In the present projections, we used cohort fertility data to estimate the future fertility rate. In this method, we observe the birth process per female birth cohort (a population group born in the same year) over the course of their lives, and forecast the fertility rate for cohorts whose birth process is incomplete for each year until the process is complete. The future age-specific and total fertility rates on an annual basis can be obtained by converting the cohort age-specific data into annual data. Note that we analyzed the past records of births from Japanese women only, based on which we projected the fertility trend for the whole population base with the aim of obtaining further precision in the determination of fertility rate trends. Therefore, the assumed index figures in relation to marriage and childbirth described hereafter all refer to Japanese women (the approach to handling the fertility rate of non-Japanese women is explained later).

Cohort age-specific fertility rates were statistically estimated and/or assumptions were set by birth order by way of models that use the lifetime probability of birth, age of childbearing, and so forth. That is, in the case of cohorts that are currently going through the birth process, the lifetime birth process is statistically estimated from the actual figures derived during the birth process. For young cohorts for whom only scant or no actual birth data is available yet, the index at the completion of the birth process was calculated based on indexes projected separately for the reference cohort. Note that the reference cohort refers to women born in 2000. We projected individual index values for first marriage behavior, couples' reproductive behavior, and behavior pertaining to divorce, bereavement, and remarriage based on actual statistics, and set the total cohort fertility rate and the distribution by birth order based on the calculation results for those index values.

The trends in individual index values for the reference cohort are as follows. With regard to first marriage behavior, the mean age at first marriage for women has been increasing and will likely continue to increase. As for the proportion of women who have never been married at 50 years of age, which expresses the effect for unmarried women, we observed the increase of the proportion because of the rise in age of marriage (due to postponement of marriage) as well as the fact that more women avoid marriage. The proportion of never married women at 50 years of age according to the medium-fertility variant, which is considered as a standard assumption, is projected to increase from the recently completed cohort, although the level is considered to be slightly lower than that of the reference cohort in the 2012 projection.

The completed number of births from married couples, which is an indicator for couples' reproductive behavior, is affected by the structural change caused by delayed marriage and childbearing, and by the changes in the reproductive behavior of couples. The expected completed number of births from married couples showing the structural effect for delayed marriage and childbearing is projected to decrease at a higher pace than before as a result of the increase in the mean age at first marriage. The



index indicating changes in the reproductive behavior of couples (fertility variation coefficient of married couples) decreases remarkably for the cohort born in the 1960s, whereas the decline in the reproductive behavior of couples is mitigated for the cohort born after the 1970s by the births after 30 years of age. Therefore, the completed number of births from married couples in the medium-fertility variant is projected to reach a higher level than that of the reference cohort in the 2012 projection, although the level is lower than that of the actual recent cohort.

We can obtain the effects of divorce, bereavement, and remarriage on fertility rates (the coefficient of divorce, bereavement, and remarriage) as a coefficient of the completed number of births from women with these experiences and the trend of structural changes in marital status, divided by the fertility level of first-marriage couples who have completed the birth process. This coefficient is considered to be a higher level than that of the reference cohort in the 2012 projection, since the divorce rates have recently remained at almost the same level and the diminishment of the fertility level by divorce, bereavement, and remarriage is thereby mitigated.

Because the future development of fertility is uncertain, we decided to set the aforementioned three assumptions (medium-, high-, and low-variant projections) and project the future population based on each assumption. This approach accounts for a certain range of fluctuation that can be expected in the future population trends brought about by changes in birth view from the current state.

#### **(1) Medium-fertility Assumption**

(i) The mean age at first marriage of women by cohort increases gradually from 26.3 years of age for the cohort born in 1964, to 28.6 years of age for the cohort born in 2000. It levels off at nearly the same level until the cohort born in 2015, and remains unchanged thereafter.

(ii) The proportion of women who have never been married at 50 years of age increases from 12.0% for the cohort born in 1964, to 18.8% for the cohort born in 2000. It then levels off at nearly the same level until the cohort born in 2015, and remains unchanged thereafter.

(iii) Delayed marriage, delayed childbearing, and changes in the reproductive behavior of couples affect the completed number of births from married couples. Using couples with wives in the cohorts born between 1935 and 1954 as a benchmark (1.0), the index indicating changes in the reproductive behavior of couples (fertility variation coefficient of married couples) declines to 0.957 children for the cohort born in 2000. It remains at nearly the same level until the cohort born in 2015, and remains unchanged thereafter. The completed number of births from married couples is obtained from this index and the change in first marriage behavior as outlined in assumptions (i) and (ii) above, and drops from 1.93 for the cohort born between 1963 and 1967 to 1.79 for the cohort born in 2000, remaining unchanged thereafter.

(iv) We obtained the effects of divorce, bereavement, and remarriage on fertility rates (the coefficient of divorce, bereavement, and remarriage) based on the completed number of births from women with these experiences and the trend of structural changes in marital status. As a result, by setting the fertility level of first-marriage couples who have completed the birth process as a benchmark (1.0), the coefficient of divorce, bereavement, and remarriage decreases from the actual figure of 0.959 for the cohort born in 1964, to 0.955 for the cohort born in 2000 and maintains almost the same levels up to the cohort born in 2015. It remains unchanged thereafter.

As a result of assumptions (i) to (iv) above, the total cohort fertility rate of Japanese women decreases from the actually observed figure of 1.630 for the cohort born in 1964 to 1.397 for the cohort born in 2000. It remains almost constant until the cohort born in 2010, and remains unchanged thereafter.

We converted the cohort age-specific fertility rates obtained above into an annual fertility rate. Subsequently, we assumed that the relationship between moments of the fertility rate of non-Japanese women obtained from the actual statistics and that of Japanese women to be constant, and used it as a basis to obtain the age-specific fertility rate of non-Japanese women. With this operation, it becomes possible to calculate the fertility rate with the same definition as the Vital Statistics (i.e., the fertility rate including children of Japanese nationality born from women of non-Japanese nationality; see the formula below).

### Vital statistics of the total fertility rate

$$\text{Total fertility rate} = \frac{\sum_{\text{Sum for age (15-49)}} \left( \begin{array}{l} \text{Number of births} \\ \text{by Japanese women} \end{array} + \begin{array}{l} \text{Number of births with Japanese nationality} \\ \text{born from non-Japanese women}^* \end{array} \right)}{\text{Population of Japanese women}}$$

\* A child with Japanese nationality born from a non-Japanese female is a child whose father is Japanese.

The results of the calculations above show that the total fertility rate of the same definition as the Vital Statistics, whose statistic value was 1.45 in 2015, is expected to gradually drop until it reaches 1.42 by 2024, whereupon it will increase slightly to 1.43 by 2035 and 1.44 by 2065 (see Table 4-1 and Figure 4-1).

With regard to the comparison of the total fertility with the previous projection at the end of the projection periods, the rate increased from 1.35 (2060) to 1.44 (2065) due to the improvement in the actual fertility rates for women in their 30s and 40s in recent years.

#### (2) High-fertility Assumption

(i) The mean age at first marriage of women by cohort will advance to 28.2 years of age for the cohort born in 2000, reach 28.1 years for the cohort born in 2015, and remain unchanged thereafter.

(ii) The proportion of women who have never been married at 50 years of age increases to 13.2% for the cohort born in 2000, ultimately dropping to 13.1% for the cohort born in 2015, and remains unchanged thereafter.

(iii) Using couples with wives in the cohorts born between 1935 and 1954 as a benchmark (1.0), the fertility variation coefficient of married couples, which indicates changes in the reproductive behavior of couples, declines temporarily but returns to 1.0 before the cohort born in 2000. The completed number of births from married couples derived from this coefficient and changes in first marriage behavior explained above will reach 1.91 children for the cohort born in 2000, maintain almost the same level up to the cohort born in 2015, and it will remain unchanged thereafter.

(iv) The coefficient of divorce, bereavement, and remarriage will decrease from the actual figure of 0.959 for the cohort born in 1964 to 0.955 for the cohort born in 2000, and maintain almost the same levels up to the cohort born in 2015, remaining unchanged thereafter.

From the assumptions (i) to (iv) above, the total cohort fertility rate of Japanese women is projected to decrease from the actual figure of 1.630 for the cohort born in 1964 to 1.591 for the cohort born in 2000, eventually reaching 1.594 for the cohort born in 2015 and remains unchanged thereafter.

Total fertility rate with the same definition as the Vital Statistics will, under the above assumptions, increase from the actual figure of 1.45 as of 2015 to 1.66 by 2024, eventually dropping to 1.65 by 2065 (see Table 4-1 and Figure 4-1).

#### (3) Low fertility Assumption

(i) The mean age at first marriage of women by cohort will increase to 29.0 years of age for the cohort born in 2000, and to 29.1 years of age for the cohort born in 2015 and remains unchanged thereafter.

(ii) The proportion of women who have never been married at 50 years of age increases to 24.7% for the cohort born in 2000, and maintains almost the same level up to the cohort born in 2015, remaining unchanged thereafter.

(iii) Using couples with wives in the cohorts born between 1935 and 1954 as a benchmark (1.0), the fertility variation coefficient of married couples, which indicates changes in the reproductive behavior of couples, declines steadily to 0.909 for the cohort born in 2000, eventually reaching 0.910 for the cohort born in 2015 and remains unchanged thereafter. The completed number of births from married couples derived from this coefficient and the changes in first marriage behavior described above will decrease to

1.68 children for the cohort born in 2000, and remain unchanged until the cohort born in 2015 and thereafter.

(iv) The coefficient of divorce, bereavement, and remarriage will decrease from the actual figure of 0.959 for the cohort born in 1964, to 0.955 for the cohort born in 2000, and maintain almost the same levels up to the cohort born in 2015, remaining unchanged thereafter.

Based on assumptions (i) to (iv) above, the total cohort fertility rate of Japanese women will decrease from the actual figure of 1.630 for the cohort born in 1964, to 1.213 for the cohort born in 2000, eventually reaching 1.210 for the cohort born in 2015 and remains unchanged thereafter.

The total fertility rate with the same definition as the Vital Statistics will, under the above assumptions, decrease from the actual figure of 1.45 as of 2015 to 1.20 by 2024; thereafter, it will exhibit a slight increase to 1.25 by 2065 (see Table 4-1 and Figure 4-1).

Regarding the sex ratio at birth (the number of male children for every 100 female children) that is used to divide the future number of newborns into male and female births, we assumed the actual figure for the five years from 2011 to 2015 (105.2) to remain constant for 2016 and thereafter.

### **3. Assumptions for Survival Rates (Future Life Table)**

In order to project the population from one year to the next, survival rates by age and sex are needed, and in order to obtain future survival rates, it is necessary to construct future life tables. In the Projections, we have adopted the Lee-Carter model, which is currently internationally recognized as the standard model, to construct future life tables. We modified the model by adding new features so that the model adapts properly to Japan's characteristic mortality trend, which exhibits the highest level of life expectancy in the world. The Lee-Carter model describes the change in mortality rates for each age according to the change in the general mortality level by decomposing the matrix of age-specific mortality rates into a standard age schedule, a general level of mortality (mortality index), age-specific mortality rate changes relative to the mortality index, and an error term. In the Projections, we used the Lee-Carter model for the younger generations and combined it with a model that expresses the mortality rate improvement as a shift of the mortality rate curve to the advanced age side (linear differential model) for the older generations, in order to adapt to the mortality conditions of Japan, where mortality rate improvement is notable. Note that the linear differential model describes the difference in the shift of the elderly mortality rate curve in the horizontal direction by a linear function of age.

When projecting the future mortality index, we used data from after 1970 in order to reflect changes in the level of mortality that gradually slowed down in recent years. From the perspective of ensuring consistency in terms of the mortality rate of men and women, curve fittings were applied simultaneously for both men and women. For the amount of shift and the gradient of the mortality rate curve to the advanced age side used in the linear differential model, we used the rate of change of the mortality index to make projections.

Because the improvement in Japanese mortality levels in recent years is showing trends beyond the assumptions of existing theories, we judged that the future mortality rate transitions and achieved levels will be highly uncertain as in the previous projections. Therefore, in the projections we decided to create multiple assumptions to obtain a likely fluctuation range for the projections. That is, we obtained the distribution of mortality index parameters for the standard mortality rate trend via the bootstrap method, and similarly used the distribution to estimate the 99% prediction interval of the mortality indices. Additionally, we added a "high-mortality" assumption with a high mortality rate, in which the mortality index remains at the upper limit level of the confidence interval, and a "low-mortality" assumption with a low mortality rate, in which the mortality index remains at the lower limit of the confidence interval.

Based upon the parameters and variables obtained through the procedures above, we finally calculated age- and sex-specific mortality rates until 2065 to construct the future life tables.

#### **(1) Medium-mortality Assumption**

According to the standard future life tables, life expectancy, which was 80.75 years for men and 86.98 years for women in 2015, is expected to grow to 83.27 years for men and 89.63 years for women by 2040, and 84.95 years for men and 91.35 years for women by 2065 (see Table 4-2 and Figure 4-2).

### **(2) High-mortality Assumption**

According to the high-mortality assumption, the mortality rate will be higher and life expectancy will be shorter than compared to the medium variant. As a result, life expectancy according to this assumption will be 82.38 years for men and 88.71 years for women by 2040, and 83.83 years for men and 90.21 years for women by 2065.

### **(3) Low-mortality Assumption**

According to the low-mortality assumption, the mortality rate will be lower and life expectancy will be longer than compared to the medium variant. As a result, life expectancy according to this assumption will be 84.15 years for men and 90.54 years for women by 2040, and 86.05 years for men and 92.48 years for women by 2065.

## **4. Assumptions for the International Migration Rate (Numbers)**

The trend of international migration is significantly influenced by the advancement of globalization and changes in socio-economic conditions, as well as the policies and regulations concerning international migration. In addition, socio-economic events and the occurrence of disasters inside and outside Japan can also bring about great fluctuations in international migration. Recent examples of such incidents include the terrorist attacks in the United States in 2001, the outbreak of SARS (Severe Acute Respiratory Syndrome) between 2002 and 2003, and the Lehman Crisis in 2008. Most recently, the Great East Japan Earthquake in March of 2011 had a significant impact on the immigration and emigration of non-Japanese people into and out of Japan.

The actual figures show that the trends of international migration rates and numbers differ between Japanese and non-Japanese populations. Additionally, considering the demographics, the movement of the Japanese population is influenced by the age structure of the population; however, for the non-Japanese population, the relation of their movement to the population size or age structure of Japan is limited. Therefore, in the projections, we made separate assumptions on international migration for the Japanese and non-Japanese populations. We set the figures of the Japanese population based on the net international migration rate, and those of the non-Japanese population based on the number of net migrants.

Looking at the actual statistics of international migration, the Japanese population shows a tendency of exits exceeding entries. In addition, the age patterns of the net international migration rate (net migration rate) by sex are relatively stable. We thus obtained the average value of the age- and sex-specific annual net international migration rate of Japanese people between 2010 and 2015 (using values for 4 years, excluding the maximum and minimum values for each age), smoothed out the rates to remove random fluctuations, and set the result as the net international migration rate of Japanese people for 2016 and onward (Table 4-3 and Figure 4-3).

Looking at the actual statistics of international migration of the non-Japanese population, the number of net migrants has generally shown a continuous increase, although some irregular fluctuations have been observed. However, quite recently, a large-scale excess of exits was observed due to the Lehman Crisis and the Great East Japan Earthquake. The trends of immigration and emigration of non-Japanese people showed great fluctuations in a short period of time. For this reason, we deliberately excluded data from years considered to show significant temporary transitions due to socio-economic events, disasters, etc. from our estimation of the number of net migrants of non-Japanese origin since 1970, projected a long-term trend of the number of net migrants, and set the result as the assumption until 2035. Note that the sex-specific number of net migrants of each year was calculated using the average values of the sex ratio of the number of net migrants from 1970 onward, and the age-specific proportion was obtained by

smoothing the average values from 1986 to 2015, for which actual statistics are available (Table 4-4 to 4-5, Figure 4-4 to 4-5). However, in the long run, the scale of international migration of non-Japanese people must be interlocked with the population scale of Japan. We therefore obtained the age- and sex-specific net international migration rate in 2035 in each projection (using the total population of Japanese and non-Japanese people as the denominator) and assumed it to be constant thereafter.

\* In this paper, we call the nine projections made by the above method until 2065 as "the basic projections."

## **5. Long-range Auxiliary Projections and Conditional Projections**

### **(1) Long-range Auxiliary Projections**

Although the end of the projection period for the basic projections is 2065, we made long-range auxiliary projections for the period from 2066 to 2115, which may be used as a reference for analysis of long-term population projections. In these projections, the survival rate-fertility rate, sex ratio at birth, and international migration rate are assumed to remain constant from 2066 (Table 5-146).

### **(2) Conditional Projections**

Conditional projections are quantitative simulations for analyzing the responses of future populations to the changes of the assumptions in mechanical manners, which are made by means of basic projections every time to understand the results more clearly. In this paper, the results of the counterfactual simulations of the future population corresponding to various scenarios with different fertility and non-Japanese net migration levels are exhibited.

For the fertility rate, we use the three assumptions in the basic projections and create age-specific fertility rates by linear interpolation (extrapolation) of age-specific fertility rates for the three assumptions. As for the levels, we set the total fertility rates with the same definition as the Vital Statistics in 2065 as 1.00, 1.20, 1.40, 1.60, 1.80, 2.00, and 2.20.

For the non-Japanese net migration, we use the assumptions in the basic projections and create the number of net migrations for each year until 2035 by multiplying a single coefficient to those in the basic projections. As for the levels, we set the number of net migration in 2035 as 0, 50 thousand, 100 thousand, 250 thousand, 500 thousand, 750 thousand, and 1 million. As in the basic projections, we obtained the age- and sex-specific net international migration rate in 2035 in each projection (using the total population of Japanese and non-Japanese people as the denominator) and assumed it to be constant thereafter.

As for the results of the conditional projections, trends in total population and the proportion of the old-age population out of the entire population are exhibited in comparative tables.

\* In the basic projections, neutrality and objectivity of the results are ensured by setting assumptions for fertility, mortality, and international migration using demographic projection methods based on the latest actual data as shown in the "Summary of the Method Used for Population Projections." Population projections could only become a common basis for planning in various areas through this procedure. (In light of the methodology in the setting of assumptions, the basic projections appear to show population trends in the change of the current society that would continue in the future).

## IV Summary Tables and Figures

### A. Summary of Results and Assumptions

**Summary of Projection Results (medium mortality variant projection)**

Fertility assumption [ long-term total fertility rate ]		Medium fertility variant [ 1.44 ]	High fertility variant [ 1.65 ]	Low fertility variant [ 1.25 ]	Medium fertility variant projection in 2012 [ 1.35 ]
Mortality assumption [ long-term life expectancy ]		Medium mortality variant [ Male: 84.95 years ] [ Female: 91.35 years ]			Male: 84.19 years Female: 90.93 years
Total population	2015	127.09 million	127.09 million	127.09 million	126.60 million
	2040	110.92 million	113.74 million	108.33 million	107.28 million
	2060	92.84 million	98.77 million	87.63 million	86.74 million
	2065	88.08 million	94.90 million	82.13 million	(81.35 million)
Young-age (0 to 14) population	2015	15.95 million 12.5%	15.95 million 12.5%	15.95 million 12.5%	15.83 million 12.5%
	2040	11.94 million 10.8%	13.72 million 12.1%	10.27 million 9.5%	10.73 million 10.0%
	2060	9.51 million 10.2%	11.95 million 12.1%	7.50 million 8.6%	7.91 million 9.1%
	2065	8.98 million 10.2%	11.59 million 12.2%	6.84 million 8.3%	(7.35 million) 9.0%
Working-age (15 to 64) population	2015	77.28 million 60.8%	77.28 million 60.8%	77.28 million 60.8%	76.82 million 60.7%
	2040	59.78 million 53.9%	60.81 million 53.5%	58.85 million 54.3%	57.87 million 53.9%
	2060	47.93 million 51.6%	51.42 million 52.1%	44.72 million 51.0%	44.18 million 50.9%
	2065	45.29 million 51.4%	49.50 million 52.2%	41.47 million 50.5%	(41.13 million) 50.6%
Old-age (65 and over) population	2015	33.87 million 26.6%	33.87 million 26.6%	33.87 million 26.6%	33.95 million 26.8%
	2040	39.21 million 35.3%	39.21 million 34.5%	39.21 million 36.2%	38.68 million 36.1%
	2060	35.40 million 38.1%	35.40 million 35.8%	35.40 million 40.4%	34.64 million 39.9%
	2065	33.81 million 38.4%	33.81 million 35.6%	33.81 million 41.2%	(32.87 million) 40.4%

The figures for 2065 by 2012 projection (in brackets) are those in the long-range auxiliary projections.

## Summary of the Method used for Projections

We set assumptions on individual components of the population dynamics, i.e., birth, death, and international migration and projected the future population using the cohort component method. Assumptions are made based on the past demographic dynamics for each component using the demographic method.

### (1) Summary of Fertility Assumptions

We set assumptions on marriage and fertility indexes of the female cohort born in 2000 (reference cohort) and assumed that fertility will develop from the empirical or estimated values of older cohorts to that of the cohort born in 2015, and will remain constant thereafter.

Type of assumption	Fertility assumption index	Assumption			Total fertility rate			Projection in 2012
		Current statistic value, women born in 1964		Assumption, women born in 2000 (reference cohort)	Statistics in 2015	Progression	2065	2060
Medium-variant assumption	(1) Mean age at first marriage	26.3 years old	→	28.6 years old	1.45	Maximum value 2015	1.44	1.35
	(2) Proportion of never married	12.0%	→	18.8%		1.45		
	(3) Completed number of births from married couples	1.96 children	→	1.79 children		Minimum value 2024		
	(4) Coefficient of divorce, bereavement, and remarriage	0.959	→	0.955		1.42		
High-variant assumption	(1) Mean age at first marriage	Same as above	→	28.2 years old	1.45	Maximum value 2024	1.65	1.60
	(2) Proportion of never married		→	13.2%		1.66		
	(3) Completed number of births from married couples		→	1.91 children		Minimum value 2015		
	(4) Coefficient of divorce, bereavement, and remarriage		→	0.955		1.45		
Low-variant assumption	(1) Mean age at first marriage	Same as above	→	29.0 years old	1.45	Maximum value 2015	1.25	1.12
	(2) Proportion of never married		→	24.7%		1.45		
	(3) Completed number of births from married couples		→	1.68 children		Minimum value 2024		
	(4) Coefficient of divorce, bereavement, and remarriage		→	0.955		1.20		

Sex ratio at birth: The average value of the sex ratio at birth (105.2) from 2011 to 2015 is assumed to remain constant thereafter.

### (2) Summary of Mortality Assumptions

We made the "medium-mortality" assumption (84.95 years for men and 91.35 years for women by 2065) based on the statistics of mortality from 1970 to 2015, and set the "high-mortality" assumption (83.22 years and 89.96 years for men and women, respectively) and the "low-mortality" assumption (85.14 years and 91.90 years for men and women, respectively) according to the 99% confidence interval of the mortality index parameters.

### **(3) Summary of International Migration Assumptions**

For Japanese migration, we assumed that the average of the sex- and age-specific net international migration rate (net migration rate) from 2010 to 2015 would remain constant thereafter. For non-Japanese migration, we projected the trend of the number of net migrants in 1970 and onward, and used this trend as the assumption. The number of net non-Japanese migrants is expected to reach 33,894 men and 35,380 women by 2035. In subsequent years, the sex- and age-specific net international migration rate of non-Japanese people was set to be constant (using the total population as the denominator).



B. Results of Projections According to  
the Three Fertility Variants with  
Medium-Mortality Assumption



Table 1-1 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0~14	15~64	65 +	0~14	15~64	65 +
2015	127,095	15,945	77,282	33,868	12.5	60.8	26.6
2016	126,838	15,771	76,482	34,585	12.4	60.3	27.3
2017	126,532	15,587	75,782	35,163	12.3	59.9	27.8
2018	126,177	15,413	75,158	35,606	12.2	59.6	28.2
2019	125,773	15,235	74,622	35,916	12.1	59.3	28.6
2020	125,325	15,075	74,058	36,192	12.0	59.1	28.9
2021	124,836	14,900	73,550	36,386	11.9	58.9	29.1
2022	124,310	14,702	73,130	36,479	11.8	58.8	29.3
2023	123,751	14,484	72,683	36,584	11.7	58.7	29.6
2024	123,161	14,276	72,181	36,704	11.6	58.6	29.8
2025	122,544	14,073	71,701	36,771	11.5	58.5	30.0
2026	121,903	13,867	71,231	36,805	11.4	58.4	30.2
2027	121,240	13,684	70,716	36,840	11.3	58.3	30.4
2028	120,555	13,502	70,147	36,905	11.2	58.2	30.6
2029	119,850	13,353	69,507	36,990	11.1	58.0	30.9
2030	119,125	13,212	68,754	37,160	11.1	57.7	31.2
2031	118,380	13,028	68,353	37,000	11.0	57.7	31.3
2032	117,616	12,862	67,557	37,197	10.9	57.4	31.6
2033	116,833	12,713	66,738	37,383	10.9	57.1	32.0
2034	116,033	12,579	65,861	37,592	10.8	56.8	32.4
2035	115,216	12,457	64,942	37,817	10.8	56.4	32.8
2036	114,383	12,344	63,954	38,084	10.8	55.9	33.3
2037	113,535	12,239	62,905	38,391	10.8	55.4	33.8
2038	112,674	12,137	61,813	38,724	10.8	54.9	34.4
2039	111,801	12,037	60,748	39,016	10.8	54.3	34.9
2040	110,919	11,936	59,777	39,206	10.8	53.9	35.3
2041	110,028	11,833	58,877	39,318	10.8	53.5	35.7
2042	109,131	11,726	58,053	39,352	10.7	53.2	36.1
2043	108,229	11,616	57,268	39,346	10.7	52.9	36.4
2044	107,326	11,501	56,539	39,285	10.7	52.7	36.6
2045	106,421	11,384	55,845	39,192	10.7	52.5	36.8
2046	105,518	11,264	55,207	39,046	10.7	52.3	37.0
2047	104,616	11,142	54,580	38,894	10.7	52.2	37.2
2048	103,716	11,019	53,948	38,749	10.6	52.0	37.4
2049	102,819	10,894	53,331	38,594	10.6	51.9	37.5
2050	101,923	10,767	52,750	38,406	10.6	51.8	37.7
2051	101,029	10,639	52,213	38,177	10.5	51.7	37.8
2052	100,135	10,511	51,690	37,934	10.5	51.6	37.9
2053	99,240	10,381	51,193	37,665	10.5	51.6	38.0
2054	98,342	10,252	50,726	37,365	10.4	51.6	38.0
2055	97,441	10,123	50,276	37,042	10.4	51.6	38.0
2056	96,534	9,996	49,836	36,703	10.4	51.6	38.0
2057	95,622	9,870	49,380	36,372	10.3	51.6	38.0
2058	94,702	9,747	48,927	36,029	10.3	51.7	38.0
2059	93,775	9,626	48,438	35,711	10.3	51.7	38.1
2060	92,840	9,508	47,928	35,403	10.2	51.6	38.1
2061	91,897	9,394	47,422	35,081	10.2	51.6	38.2
2062	90,949	9,284	46,899	34,766	10.2	51.6	38.2
2063	89,994	9,177	46,362	34,456	10.2	51.5	38.3
2064	89,036	9,074	45,831	34,132	10.2	51.5	38.3
2065	88,077	8,975	45,291	33,810	10.2	51.4	38.4

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 1-2 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: High-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2015	127,095	15,945	77,282	33,868	12.5	60.8	26.6
2016	126,864	15,797	76,482	34,585	12.5	60.3	27.3
2017	126,605	15,660	75,782	35,163	12.4	59.9	27.8
2018	126,315	15,552	75,158	35,606	12.3	59.5	28.2
2019	125,998	15,460	74,622	35,916	12.3	59.2	28.5
2020	125,658	15,409	74,058	36,192	12.3	58.9	28.8
2021	125,295	15,359	73,550	36,386	12.3	58.7	29.0
2022	124,907	15,298	73,130	36,479	12.2	58.5	29.2
2023	124,490	15,224	72,683	36,584	12.2	58.4	29.4
2024	124,046	15,161	72,181	36,704	12.2	58.2	29.6
2025	123,573	15,102	71,701	36,771	12.2	58.0	29.8
2026	123,073	15,036	71,231	36,805	12.2	57.9	29.9
2027	122,547	14,991	70,716	36,840	12.2	57.7	30.1
2028	121,995	14,942	70,147	36,905	12.2	57.5	30.3
2029	121,419	14,922	69,507	36,990	12.3	57.2	30.5
2030	120,819	14,906	68,754	37,160	12.3	56.9	30.8
2031	120,196	14,817	68,379	37,000	12.3	56.9	30.8
2032	119,550	14,723	67,630	37,197	12.3	56.6	31.1
2033	118,882	14,623	66,876	37,383	12.3	56.3	31.4
2034	118,194	14,516	66,086	37,592	12.3	55.9	31.8
2035	117,488	14,397	65,275	37,817	12.3	55.6	32.2
2036	116,764	14,268	64,412	38,084	12.2	55.2	32.6
2037	116,026	14,133	63,501	38,391	12.2	54.7	33.1
2038	115,274	13,996	62,554	38,724	12.1	54.3	33.6
2039	114,511	13,858	61,636	39,016	12.1	53.8	34.1
2040	113,739	13,721	60,812	39,206	12.1	53.5	34.5
2041	112,961	13,586	60,057	39,318	12.0	53.2	34.8
2042	112,179	13,453	59,374	39,352	12.0	52.9	35.1
2043	111,396	13,323	58,727	39,346	12.0	52.7	35.3
2044	110,614	13,197	58,132	39,285	11.9	52.6	35.5
2045	109,837	13,076	57,569	39,192	11.9	52.4	35.7
2046	109,066	12,961	57,059	39,046	11.9	52.3	35.8
2047	108,302	12,854	56,555	38,894	11.9	52.2	35.9
2048	107,548	12,754	56,045	38,749	11.9	52.1	36.0
2049	106,802	12,662	55,546	38,594	11.9	52.0	36.1
2050	106,065	12,577	55,082	38,406	11.9	51.9	36.2
2051	105,335	12,499	54,660	38,177	11.9	51.9	36.2
2052	104,611	12,426	54,251	37,934	11.9	51.9	36.3
2053	103,891	12,359	53,867	37,665	11.9	51.8	36.3
2054	103,172	12,295	53,512	37,365	11.9	51.9	36.2
2055	102,452	12,235	53,175	37,042	11.9	51.9	36.2
2056	101,729	12,178	52,849	36,703	12.0	52.0	36.1
2057	101,002	12,121	52,508	36,372	12.0	52.0	36.0
2058	100,267	12,065	52,173	36,029	12.0	52.0	35.9
2059	99,524	12,008	51,806	35,711	12.1	52.1	35.9
2060	98,773	11,948	51,422	35,403	12.1	52.1	35.8
2061	98,013	11,885	51,046	35,081	12.1	52.1	35.8
2062	97,245	11,819	50,660	34,766	12.2	52.1	35.8
2063	96,470	11,747	50,266	34,456	12.2	52.1	35.7
2064	95,688	11,671	49,885	34,132	12.2	52.1	35.7
2065	94,904	11,591	49,503	33,810	12.2	52.2	35.6

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 1-3 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Low-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2015	127,095	15,945	77,282	33,868	12.5	60.8	26.6
2016	126,812	15,746	76,482	34,585	12.4	60.3	27.3
2017	126,463	15,517	75,782	35,163	12.3	59.9	27.8
2018	126,046	15,282	75,158	35,606	12.1	59.6	28.2
2019	125,562	15,024	74,622	35,916	12.0	59.4	28.6
2020	125,016	14,767	74,058	36,192	11.8	59.2	28.9
2021	124,417	14,480	73,550	36,386	11.6	59.1	29.2
2022	123,770	14,162	73,130	36,479	11.4	59.1	29.5
2023	123,085	13,818	72,683	36,584	11.2	59.1	29.7
2024	122,367	13,483	72,181	36,704	11.0	59.0	30.0
2025	121,623	13,152	71,701	36,771	10.8	59.0	30.2
2026	120,856	12,820	71,231	36,805	10.6	58.9	30.5
2027	120,069	12,513	70,716	36,840	10.4	58.9	30.7
2028	119,264	12,211	70,147	36,905	10.2	58.8	30.9
2029	118,441	11,943	69,507	36,990	10.1	58.7	31.2
2030	117,600	11,686	68,754	37,160	9.9	58.5	31.6
2031	116,742	11,414	68,328	37,000	9.8	58.5	31.7
2032	115,866	11,182	67,487	37,197	9.7	58.2	32.1
2033	114,975	10,985	66,607	37,383	9.6	57.9	32.5
2034	114,068	10,824	65,651	37,592	9.5	57.6	33.0
2035	113,145	10,694	64,634	37,817	9.5	57.1	33.4
2036	112,208	10,589	63,535	38,084	9.4	56.6	33.9
2037	111,257	10,501	62,365	38,391	9.4	56.1	34.5
2038	110,292	10,423	61,146	38,724	9.5	55.4	35.1
2039	109,316	10,349	59,951	39,016	9.5	54.8	35.7
2040	108,329	10,274	58,850	39,206	9.5	54.3	36.2
2041	107,333	10,194	57,821	39,318	9.5	53.9	36.6
2042	106,330	10,109	56,869	39,352	9.5	53.5	37.0
2043	105,320	10,016	55,959	39,346	9.5	53.1	37.4
2044	104,306	9,915	55,106	39,285	9.5	52.8	37.7
2045	103,289	9,805	54,292	39,192	9.5	52.6	37.9
2046	102,269	9,688	53,535	39,046	9.5	52.3	38.2
2047	101,248	9,563	52,791	38,894	9.4	52.1	38.4
2048	100,224	9,430	52,046	38,749	9.4	51.9	38.7
2049	99,199	9,289	51,316	38,594	9.4	51.7	38.9
2050	98,172	9,141	50,625	38,406	9.3	51.6	39.1
2051	97,142	8,987	49,979	38,177	9.3	51.4	39.3
2052	96,108	8,826	49,348	37,934	9.2	51.3	39.5
2053	95,071	8,661	48,744	37,665	9.1	51.3	39.6
2054	94,028	8,493	48,170	37,365	9.0	51.2	39.7
2055	92,979	8,323	47,614	37,042	9.0	51.2	39.8
2056	91,923	8,152	47,067	36,703	8.9	51.2	39.9
2057	90,860	7,984	46,505	36,372	8.8	51.2	40.0
2058	89,790	7,818	45,944	36,029	8.7	51.2	40.1
2059	88,712	7,656	45,345	35,711	8.6	51.1	40.3
2060	87,626	7,500	44,723	35,403	8.6	51.0	40.4
2061	86,535	7,352	44,102	35,081	8.5	51.0	40.5
2062	85,437	7,211	43,460	34,766	8.4	50.9	40.7
2063	84,336	7,080	42,801	34,456	8.4	50.8	40.9
2064	83,232	6,958	42,143	34,132	8.4	50.6	41.0
2065	82,128	6,845	41,473	33,810	8.3	50.5	41.2

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

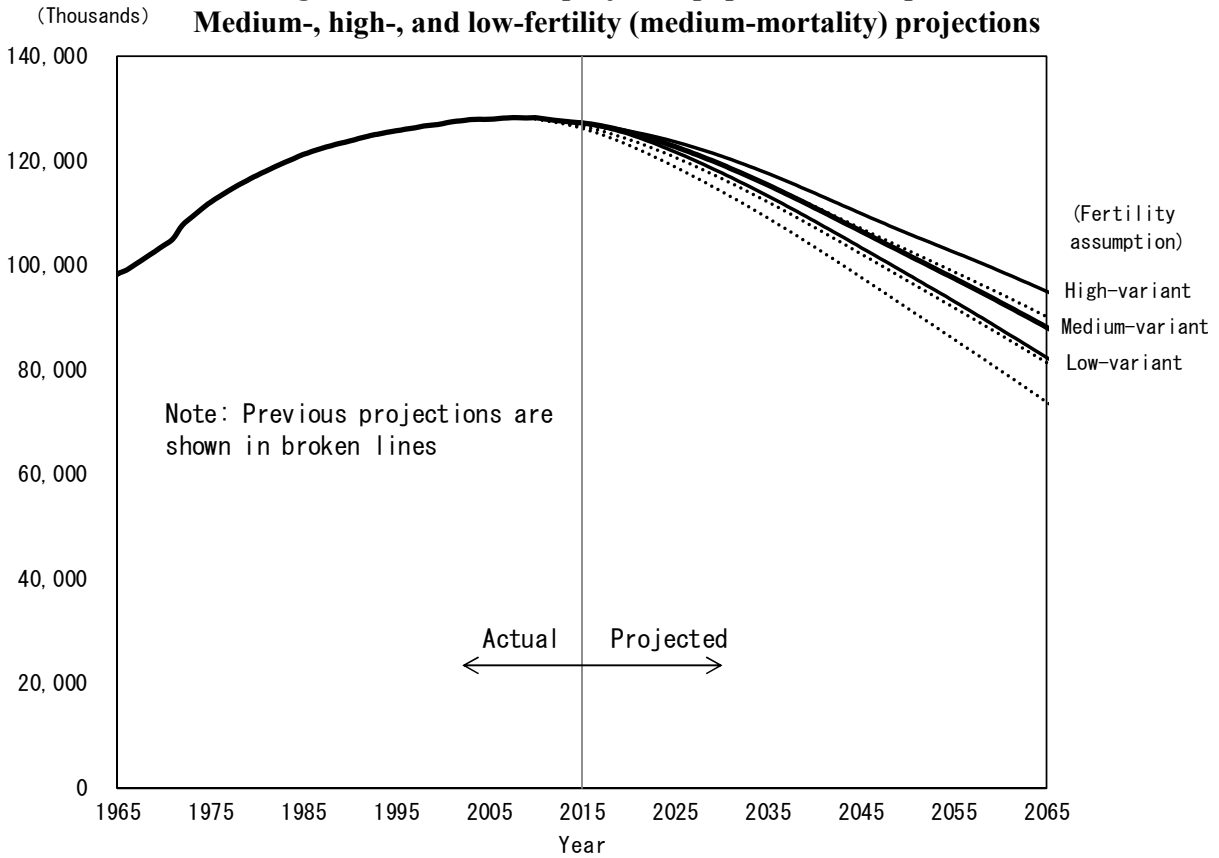
Table 1-4 Mean age and dependency ratio: Medium-, high-, and low-fertility (medium-mortality) projection

Year	Medium-fertility (medium-mortality) projection				High-fertility (medium-mortality) projection				Low-fertility (medium-mortality) projection			
	Mean Age (year)	Dependency Ratio (per 100)			Mean Age (year)	Dependency Ratio (per 100)			Mean Age (year)	Dependency Ratio (per 100)		
		Total	Young-age	Old-age		Total	Young-age	Old-age		Total	Young-age	Old-age
2015	46.4	64.5	20.6	43.8	46.4	64.5	20.6	43.8	46.4	64.5	20.6	43.8
2016	46.7	65.8	20.6	45.2	46.7	65.9	20.7	45.2	46.7	65.8	20.6	45.2
2017	47.0	67.0	20.6	46.4	46.9	67.1	20.7	46.4	47.0	66.9	20.5	46.4
2018	47.2	67.9	20.5	47.4	47.2	68.1	20.7	47.4	47.3	67.7	20.3	47.4
2019	47.5	68.5	20.4	48.1	47.4	68.8	20.7	48.1	47.6	68.3	20.1	48.1
2020	47.8	69.2	20.4	48.9	47.6	69.7	20.8	48.9	47.9	68.8	19.9	48.9
2021	48.0	69.7	20.3	49.5	47.8	70.4	20.9	49.5	48.2	69.2	19.7	49.5
2022	48.3	70.0	20.1	49.9	48.0	70.8	20.9	49.9	48.5	69.2	19.4	49.9
2023	48.5	70.3	19.9	50.3	48.2	71.3	20.9	50.3	48.7	69.3	19.0	50.3
2024	48.7	70.6	19.8	50.8	48.4	71.9	21.0	50.8	49.0	69.5	18.7	50.8
2025	49.0	70.9	19.6	51.3	48.6	72.3	21.1	51.3	49.3	69.6	18.3	51.3
2026	49.2	71.1	19.5	51.7	48.8	72.8	21.1	51.7	49.6	69.7	18.0	51.7
2027	49.4	71.4	19.4	52.1	48.9	73.3	21.2	52.1	49.8	69.8	17.7	52.1
2028	49.6	71.9	19.2	52.6	49.1	73.9	21.3	52.6	50.1	70.0	17.4	52.6
2029	49.8	72.4	19.2	53.2	49.2	74.7	21.5	53.2	50.3	70.4	17.2	53.2
2030	50.0	73.3	19.2	54.0	49.3	75.7	21.7	54.0	50.5	71.0	17.0	54.0
2031	50.1	73.2	19.1	54.1	49.5	75.8	21.7	54.1	50.7	70.9	16.7	54.2
2032	50.3	74.1	19.0	55.1	49.6	76.8	21.8	55.0	50.9	71.7	16.6	55.1
2033	50.4	75.1	19.0	56.0	49.7	77.8	21.9	55.9	51.1	72.6	16.5	56.1
2034	50.6	76.2	19.1	57.1	49.8	78.8	22.0	56.9	51.3	73.7	16.5	57.3
2035	50.7	77.4	19.2	58.2	49.9	80.0	22.1	57.9	51.5	75.1	16.5	58.5
2036	50.9	78.9	19.3	59.5	50.0	81.3	22.2	59.1	51.7	76.6	16.7	59.9
2037	51.0	80.5	19.5	61.0	50.1	82.7	22.3	60.5	51.8	78.4	16.8	61.6
2038	51.1	82.3	19.6	62.6	50.2	84.3	22.4	61.9	52.0	80.4	17.0	63.3
2039	51.2	84.0	19.8	64.2	50.3	85.8	22.5	63.3	52.2	82.3	17.3	65.1
2040	51.4	85.6	20.0	65.6	50.4	87.0	22.6	64.5	52.3	84.1	17.5	66.6
2041	51.5	86.9	20.1	66.8	50.4	88.1	22.6	65.5	52.4	85.6	17.6	68.0
2042	51.6	88.0	20.2	67.8	50.5	88.9	22.7	66.3	52.6	87.0	17.8	69.2
2043	51.7	89.0	20.3	68.7	50.6	89.7	22.7	67.0	52.7	88.2	17.9	70.3
2044	51.8	89.8	20.3	69.5	50.6	90.3	22.7	67.6	52.9	89.3	18.0	71.3
2045	51.9	90.6	20.4	70.2	50.7	90.8	22.7	68.1	53.0	90.2	18.1	72.2
2046	52.0	91.1	20.4	70.7	50.8	91.1	22.7	68.4	53.1	91.0	18.1	72.9
2047	52.0	91.7	20.4	71.3	50.8	91.5	22.7	68.8	53.3	91.8	18.1	73.7
2048	52.1	92.3	20.4	71.8	50.9	91.9	22.8	69.1	53.4	92.6	18.1	74.5
2049	52.2	92.8	20.4	72.4	50.9	92.3	22.8	69.5	53.6	93.3	18.1	75.2
2050	52.3	93.2	20.4	72.8	50.9	92.6	22.8	69.7	53.7	93.9	18.1	75.9
2051	52.4	93.5	20.4	73.1	51.0	92.7	22.9	69.8	53.8	94.4	18.0	76.4
2052	52.5	93.7	20.3	73.4	51.0	92.8	22.9	69.9	54.0	94.8	17.9	76.9
2053	52.6	93.9	20.3	73.6	51.1	92.9	22.9	69.9	54.2	95.0	17.8	77.3
2054	52.7	93.9	20.2	73.7	51.1	92.8	23.0	69.8	54.3	95.2	17.6	77.6
2055	52.8	93.8	20.1	73.7	51.2	92.7	23.0	69.7	54.5	95.3	17.5	77.8
2056	52.9	93.7	20.1	73.6	51.2	92.5	23.0	69.4	54.6	95.3	17.3	78.0
2057	53.0	93.6	20.0	73.7	51.2	92.4	23.1	69.3	54.8	95.4	17.2	78.2
2058	53.1	93.6	19.9	73.6	51.2	92.2	23.1	69.1	54.9	95.4	17.0	78.4
2059	53.2	93.6	19.9	73.7	51.2	92.1	23.2	68.9	55.0	95.6	16.9	78.8
2060	53.2	93.7	19.8	73.9	51.2	92.1	23.2	68.8	55.1	95.9	16.8	79.2
2061	53.3	93.8	19.8	74.0	51.2	92.0	23.3	68.7	55.3	96.2	16.7	79.5
2062	53.3	93.9	19.8	74.1	51.2	92.0	23.3	68.6	55.4	96.6	16.6	80.0
2063	53.4	94.1	19.8	74.3	51.2	91.9	23.4	68.5	55.5	97.0	16.5	80.5
2064	53.4	94.3	19.8	74.5	51.2	91.8	23.4	68.4	55.5	97.5	16.5	81.0
2065	53.4	94.5	19.8	74.6	51.2	91.7	23.4	68.3	55.6	98.0	16.5	81.5

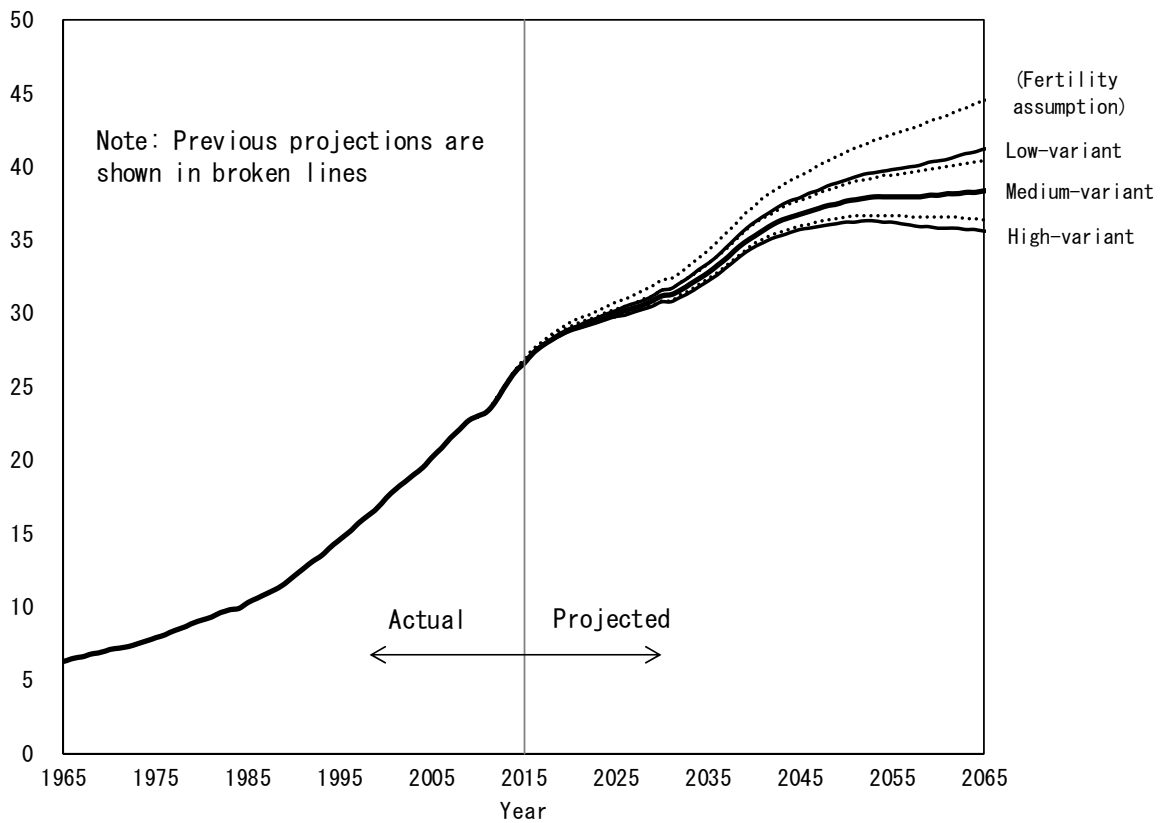
Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

The dependency ratio is a ratio obtained by dividing dependent population by the working-age population (15 to 64 years of age). This table shows the number of dependent people per 100 working-age people. The ratio of the young-age population only (under 15 years of age), out of the dependent population, divided by the working-age population is called the young-age dependency ratio, while the ratio of the old-age population only (aged 65 and over) divided by the working-age population is called the old-age dependency ratio; these indices are indicated simply as young-age and old-age population. The age dependency ratio is the sum of the young-age and old-age dependency ratio.

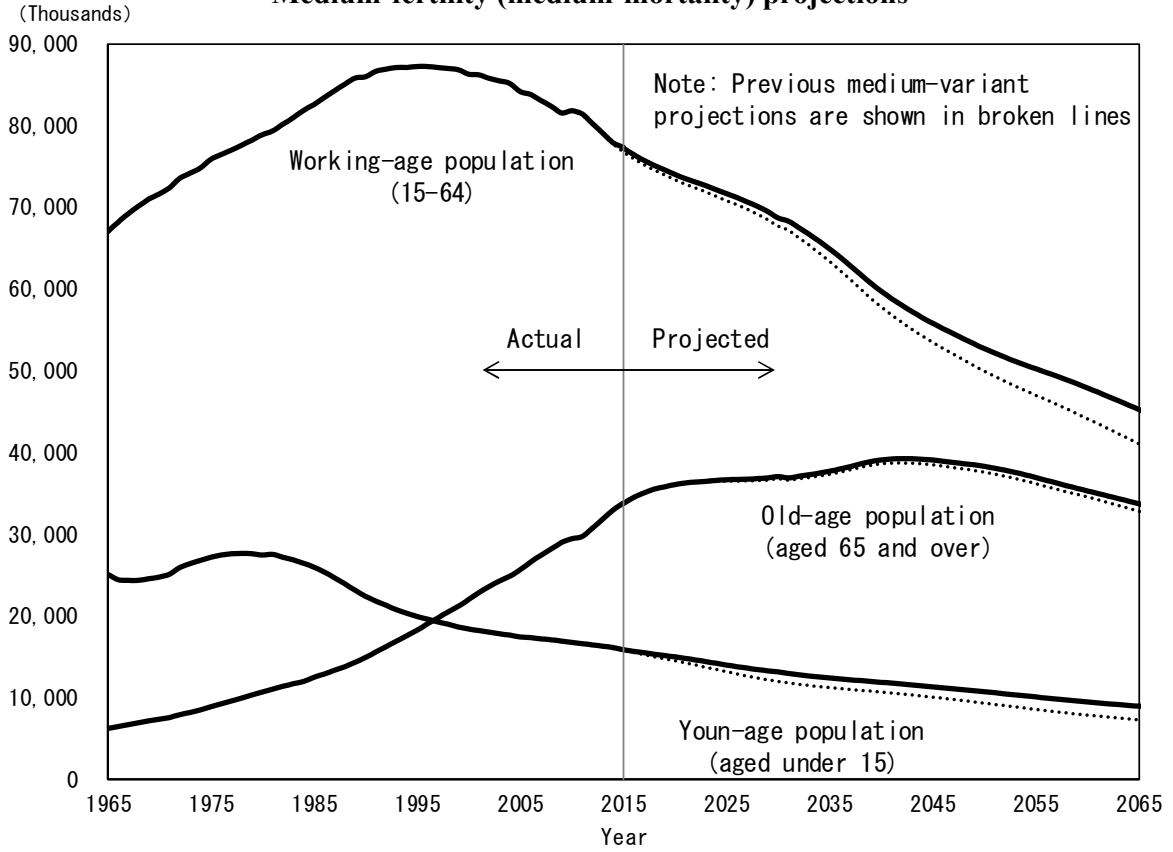
**Figure 1-1 Actual and projected population of Japan:  
Medium-, high-, and low-fertility (medium-mortality) projections**



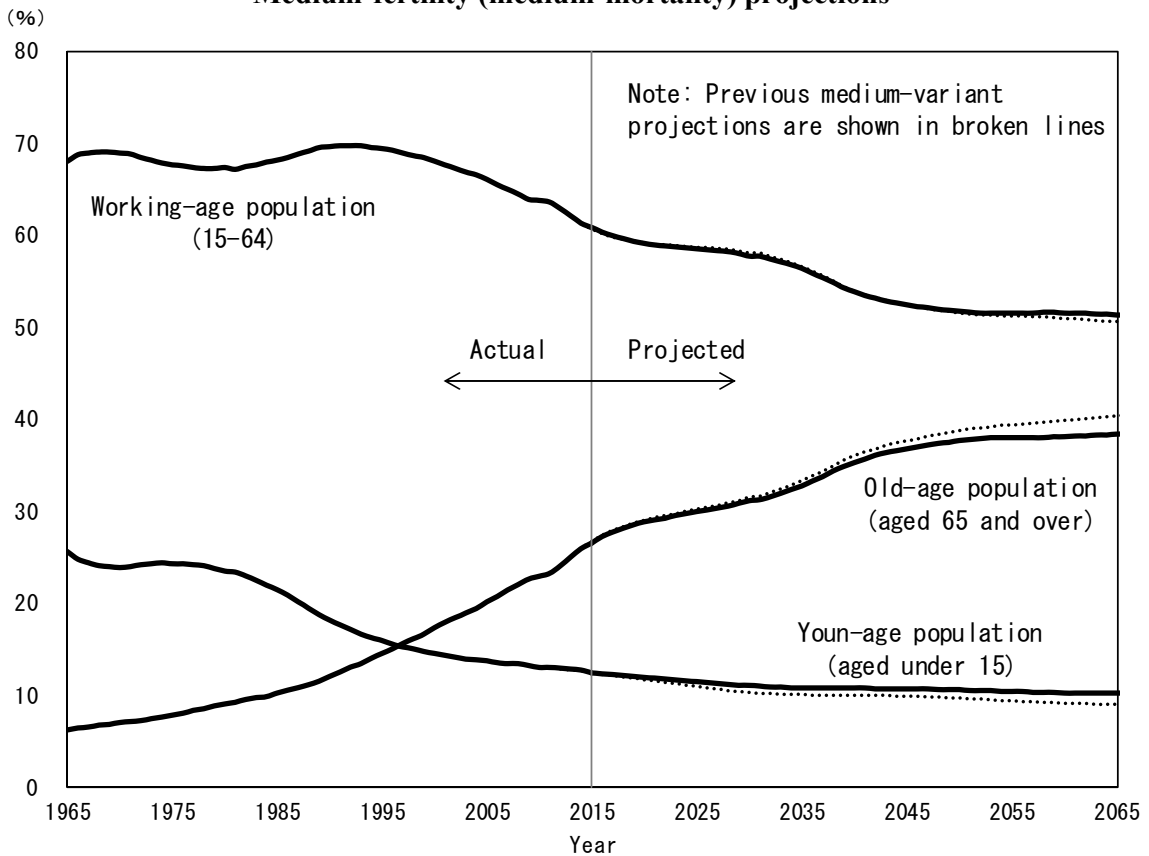
**Figure 1-2 Trends in the proportion of elderly (aged 65 and over):  
Medium-, high-, and low-fertility (medium-mortality) projections**



**Figure 1-3 Trends in the population of major three age groups:  
Medium-fertility (medium-mortality) projections**



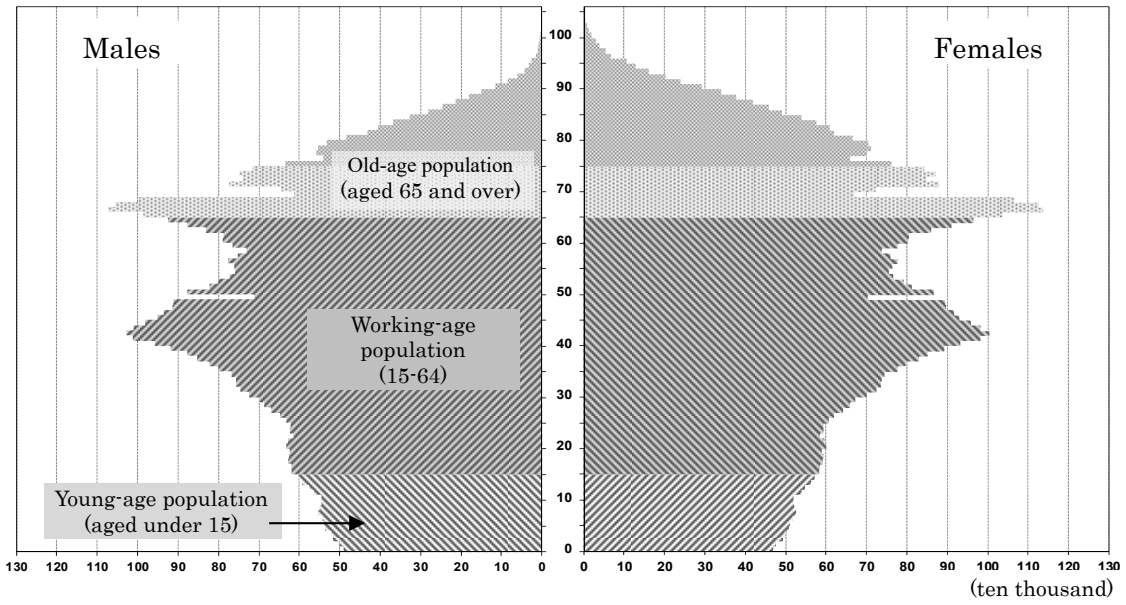
**Figure 1-4 Trends in the proportion of major three age groups:  
Medium-fertility (medium-mortality) projections**



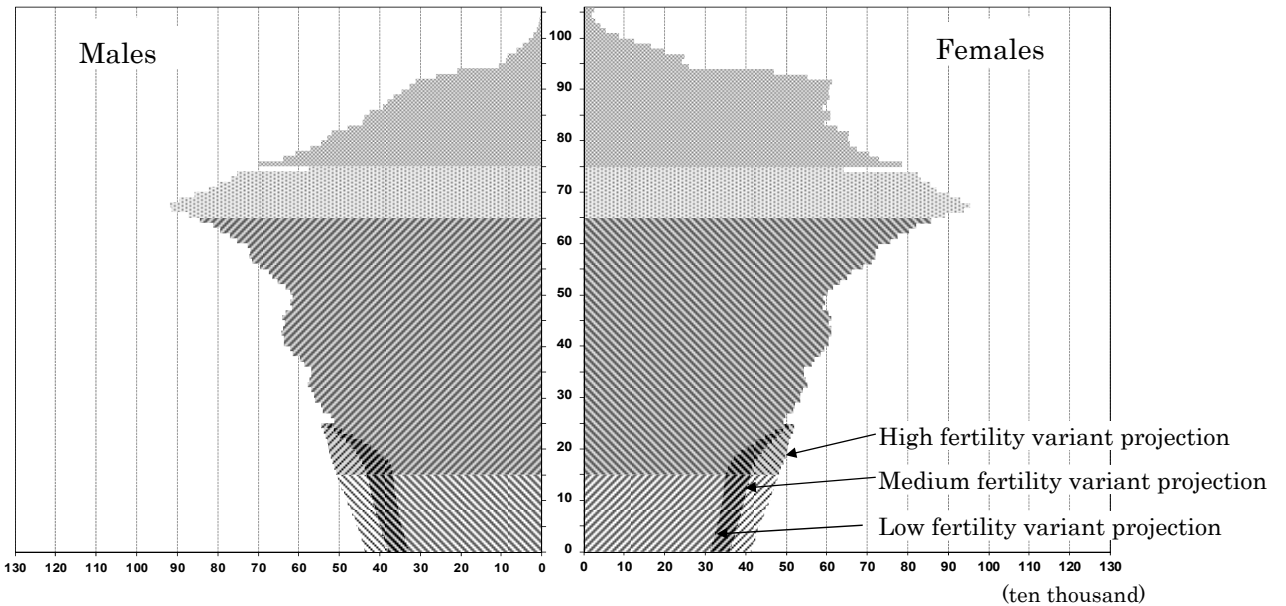


**Figure 1-5 Population pyramid: Three fertility variant projections (medium-mortality)**

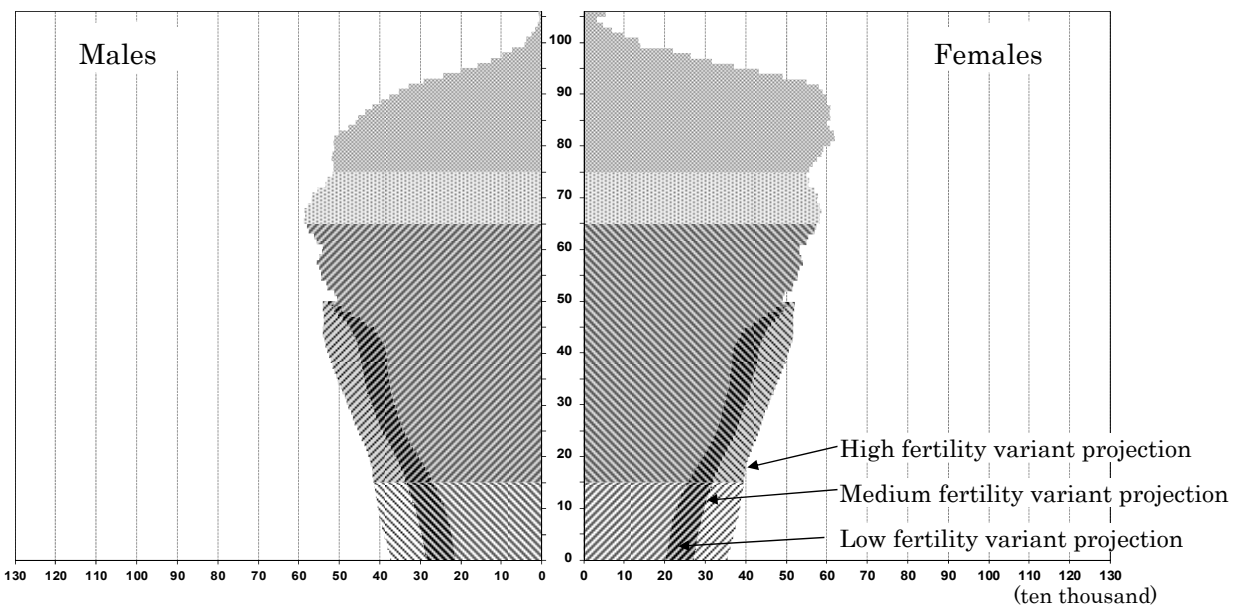
(1) 2015



(2) 2040



(3) 2065





C. Results of Projections According to  
the Medium-Fertility Assumption with  
High- and Low-Mortality Assumptions



Table 2-1 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (high-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2015	127,095	15,945	77,282	33,868	12.5	60.8	26.6
2016	126,758	15,770	76,474	34,514	12.4	60.3	27.2
2017	126,349	15,586	75,764	34,999	12.3	60.0	27.7
2018	125,895	15,412	75,130	35,353	12.2	59.7	28.1
2019	125,399	15,233	74,587	35,579	12.1	59.5	28.4
2020	124,864	15,073	74,015	35,776	12.1	59.3	28.7
2021	124,294	14,897	73,501	35,896	12.0	59.1	28.9
2022	123,691	14,699	73,074	35,919	11.9	59.1	29.0
2023	123,060	14,480	72,621	35,959	11.8	59.0	29.2
2024	122,403	14,272	72,113	36,017	11.7	58.9	29.4
2025	121,724	14,068	71,628	36,028	11.6	58.8	29.6
2026	121,024	13,861	71,154	36,009	11.5	58.8	29.8
2027	120,306	13,678	70,634	35,994	11.4	58.7	29.9
2028	119,570	13,496	70,061	36,012	11.3	58.6	30.1
2029	118,817	13,347	69,418	36,052	11.2	58.4	30.3
2030	118,047	13,205	68,661	36,180	11.2	58.2	30.6
2031	117,260	13,021	68,256	35,983	11.1	58.2	30.7
2032	116,456	12,855	67,458	36,143	11.0	57.9	31.0
2033	115,637	12,706	66,637	36,294	11.0	57.6	31.4
2034	114,802	12,572	65,759	36,471	11.0	57.3	31.8
2035	113,953	12,450	64,838	36,665	10.9	56.9	32.2
2036	113,091	12,337	63,850	36,904	10.9	56.5	32.6
2037	112,216	12,231	62,801	37,184	10.9	56.0	33.1
2038	111,331	12,130	61,710	37,491	10.9	55.4	33.7
2039	110,436	12,030	60,646	37,760	10.9	54.9	34.2
2040	109,533	11,929	59,675	37,929	10.9	54.5	34.6
2041	108,625	11,825	58,776	38,023	10.9	54.1	35.0
2042	107,713	11,719	57,952	38,042	10.9	53.8	35.3
2043	106,798	11,608	57,167	38,023	10.9	53.5	35.6
2044	105,884	11,494	56,438	37,951	10.9	53.3	35.8
2045	104,970	11,377	55,745	37,849	10.8	53.1	36.1
2046	104,058	11,257	55,107	37,695	10.8	53.0	36.2
2047	103,149	11,135	54,479	37,535	10.8	52.8	36.4
2048	102,242	11,011	53,848	37,384	10.8	52.7	36.6
2049	101,338	10,886	53,231	37,222	10.7	52.5	36.7
2050	100,435	10,759	52,650	37,026	10.7	52.4	36.9
2051	99,533	10,631	52,113	36,789	10.7	52.4	37.0
2052	98,629	10,502	51,590	36,537	10.6	52.3	37.0
2053	97,724	10,373	51,092	36,259	10.6	52.3	37.1
2054	96,814	10,243	50,624	35,946	10.6	52.3	37.1
2055	95,899	10,114	50,174	35,611	10.5	52.3	37.1
2056	94,978	9,986	49,733	35,258	10.5	52.4	37.1
2057	94,050	9,860	49,277	34,913	10.5	52.4	37.1
2058	93,114	9,737	48,823	34,554	10.5	52.4	37.1
2059	92,171	9,616	48,334	34,221	10.4	52.4	37.1
2060	91,221	9,499	47,824	33,898	10.4	52.4	37.2
2061	90,264	9,384	47,317	33,562	10.4	52.4	37.2
2062	89,302	9,274	46,794	33,234	10.4	52.4	37.2
2063	88,336	9,167	46,257	32,912	10.4	52.4	37.3
2064	87,369	9,064	45,726	32,579	10.4	52.3	37.3
2065	86,402	8,965	45,187	32,250	10.4	52.3	37.3

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 2-2 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (low-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2015	127,095	15,945	77,282	33,868	12.5	60.8	26.6
2016	126,912	15,771	76,489	34,652	12.4	60.3	27.3
2017	126,704	15,588	75,799	35,317	12.3	59.8	27.9
2018	126,441	15,414	75,183	35,844	12.2	59.5	28.3
2019	126,125	15,237	74,655	36,234	12.1	59.2	28.7
2020	125,761	15,077	74,097	36,586	12.0	58.9	29.1
2021	125,351	14,902	73,596	36,853	11.9	58.7	29.4
2022	124,900	14,705	73,182	37,013	11.8	58.6	29.6
2023	124,410	14,487	72,740	37,183	11.6	58.5	29.9
2024	123,887	14,280	72,243	37,364	11.5	58.3	30.2
2025	123,332	14,077	71,768	37,488	11.4	58.2	30.4
2026	122,750	13,871	71,303	37,576	11.3	58.1	30.6
2027	122,141	13,689	70,791	37,662	11.2	58.0	30.8
2028	121,508	13,508	70,227	37,774	11.1	57.8	31.1
2029	120,852	13,359	69,590	37,903	11.1	57.6	31.4
2030	120,172	13,218	68,839	38,116	11.0	57.3	31.7
2031	119,470	13,034	68,442	37,995	10.9	57.3	31.8
2032	118,747	12,868	67,648	38,230	10.8	57.0	32.2
2033	118,001	12,719	66,831	38,451	10.8	56.6	32.6
2034	117,236	12,585	65,956	38,695	10.7	56.3	33.0
2035	116,452	12,463	65,037	38,951	10.7	55.8	33.4
2036	115,649	12,351	64,050	39,249	10.7	55.4	33.9
2037	114,829	12,245	63,000	39,584	10.7	54.9	34.5
2038	113,994	12,143	61,908	39,943	10.7	54.3	35.0
2039	113,145	12,043	60,842	40,260	10.6	53.8	35.6
2040	112,284	11,942	59,870	40,472	10.6	53.3	36.0
2041	111,412	11,839	58,970	40,603	10.6	52.9	36.4
2042	110,532	11,733	58,145	40,654	10.6	52.6	36.8
2043	109,644	11,622	57,359	40,663	10.6	52.3	37.1
2044	108,753	11,508	56,630	40,615	10.6	52.1	37.3
2045	107,859	11,391	55,936	40,532	10.6	51.9	37.6
2046	106,964	11,271	55,298	40,395	10.5	51.7	37.8
2047	106,070	11,149	54,671	40,250	10.5	51.5	37.9
2048	105,177	11,026	54,039	40,112	10.5	51.4	38.1
2049	104,286	10,901	53,422	39,964	10.5	51.2	38.3
2050	103,398	10,774	52,841	39,782	10.4	51.1	38.5
2051	102,511	10,647	52,304	39,560	10.4	51.0	38.6
2052	101,625	10,518	51,781	39,325	10.4	51.0	38.7
2053	100,739	10,389	51,284	39,066	10.3	50.9	38.8
2054	99,852	10,260	50,817	38,775	10.3	50.9	38.8
2055	98,963	10,131	50,368	38,465	10.2	50.9	38.9
2056	98,070	10,004	49,928	38,138	10.2	50.9	38.9
2057	97,172	9,878	49,473	37,821	10.2	50.9	38.9
2058	96,268	9,755	49,020	37,492	10.1	50.9	38.9
2059	95,356	9,634	48,532	37,190	10.1	50.9	39.0
2060	94,437	9,517	48,022	36,898	10.1	50.9	39.1
2061	93,510	9,403	47,516	36,591	10.1	50.8	39.1
2062	92,575	9,292	46,992	36,290	10.0	50.8	39.2
2063	91,634	9,186	46,455	35,993	10.0	50.7	39.3
2064	90,687	9,083	45,924	35,680	10.0	50.6	39.3
2065	89,736	8,984	45,385	35,368	10.0	50.6	39.4

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

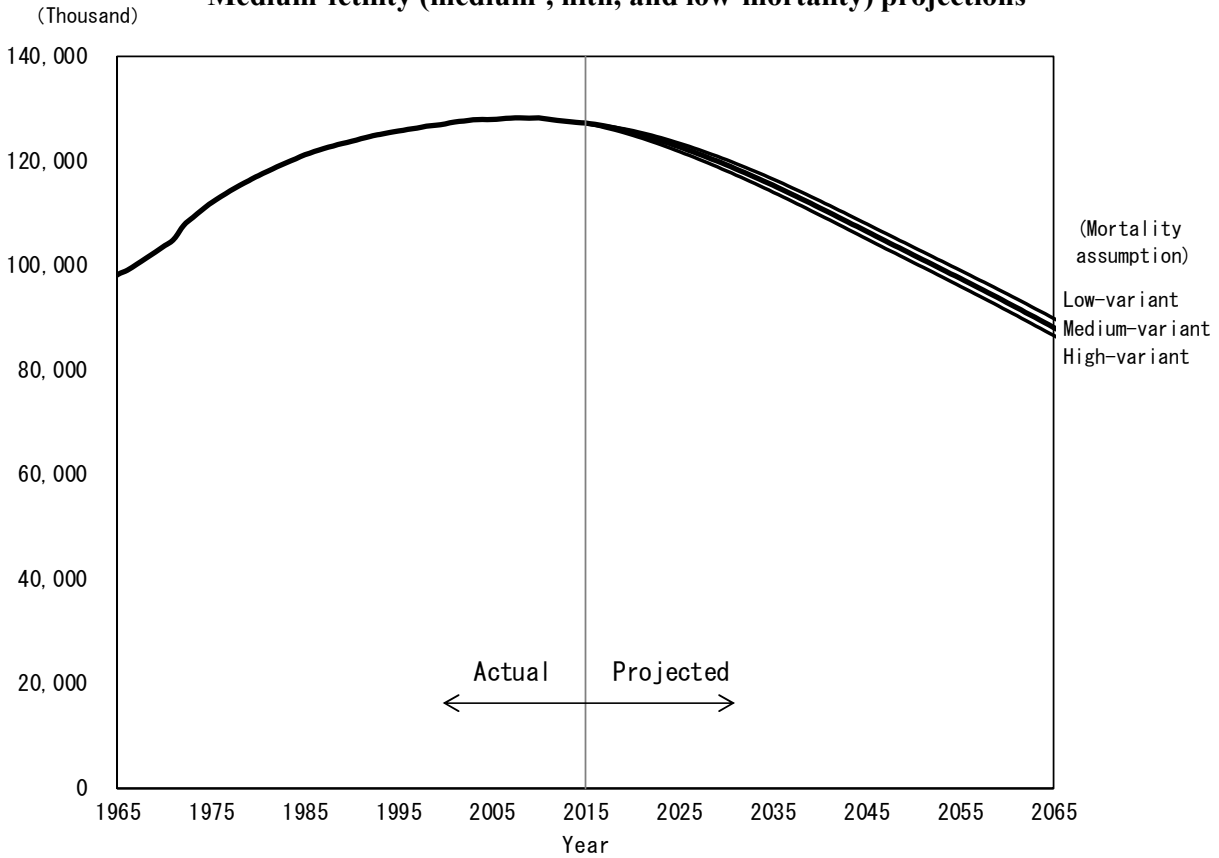
Table 2-3 Mean age and dependency ratio: Medium-fertility (medium-, high-, and low-mortality) projections

Year	Medium-fertility (medium-mortality) projection				Medium-fertility (high-mortality) projection				Medium-fertility (low-mortality) projection			
	Mean Age (year)	Dependency Ratio (per 100)			Mean Age (year)	Dependency Ratio (per 100)			Mean Age (year)	Dependency Ratio (per 100)		
		Total	Young-age	Old-age		Total	Young-age	Old-age		Total	Young-age	Old-age
2015	46.4	64.5	20.6	43.8	46.4	64.5	20.6	43.8	46.4	64.5	20.6	43.8
2016	46.7	65.8	20.6	45.2	46.7	65.8	20.6	45.1	46.7	65.9	20.6	45.3
2017	47.0	67.0	20.6	46.4	46.9	66.8	20.6	46.2	47.0	67.2	20.6	46.6
2018	47.2	67.9	20.5	47.4	47.2	67.6	20.5	47.1	47.3	68.2	20.5	47.7
2019	47.5	68.5	20.4	48.1	47.4	68.1	20.4	47.7	47.6	68.9	20.4	48.5
2020	47.8	69.2	20.4	48.9	47.6	68.7	20.4	48.3	47.9	69.7	20.3	49.4
2021	48.0	69.7	20.3	49.5	47.9	69.1	20.3	48.8	48.2	70.3	20.2	50.1
2022	48.3	70.0	20.1	49.9	48.1	69.3	20.1	49.2	48.4	70.7	20.1	50.6
2023	48.5	70.3	19.9	50.3	48.3	69.5	19.9	49.5	48.7	71.0	19.9	51.1
2024	48.7	70.6	19.8	50.8	48.5	69.7	19.8	49.9	48.9	71.5	19.8	51.7
2025	49.0	70.9	19.6	51.3	48.7	69.9	19.6	50.3	49.2	71.8	19.6	52.2
2026	49.2	71.1	19.5	51.7	48.9	70.1	19.5	50.6	49.4	72.2	19.5	52.7
2027	49.4	71.4	19.4	52.1	49.1	70.3	19.4	51.0	49.6	72.5	19.3	53.2
2028	49.6	71.9	19.2	52.6	49.3	70.7	19.3	51.4	49.8	73.0	19.2	53.8
2029	49.8	72.4	19.2	53.2	49.5	71.2	19.2	51.9	50.1	73.7	19.2	54.5
2030	50.0	73.3	19.2	54.0	49.6	71.9	19.2	52.7	50.2	74.6	19.2	55.4
2031	50.1	73.2	19.1	54.1	49.8	71.8	19.1	52.7	50.4	74.6	19.0	55.5
2032	50.3	74.1	19.0	55.1	50.0	72.6	19.1	53.6	50.6	75.5	19.0	56.5
2033	50.4	75.1	19.0	56.0	50.1	73.5	19.1	54.5	50.8	76.6	19.0	57.5
2034	50.6	76.2	19.1	57.1	50.2	74.6	19.1	55.5	50.9	77.7	19.1	58.7
2035	50.7	77.4	19.2	58.2	50.4	75.8	19.2	56.5	51.1	79.1	19.2	59.9
2036	50.9	78.9	19.3	59.5	50.5	77.1	19.3	57.8	51.2	80.6	19.3	61.3
2037	51.0	80.5	19.5	61.0	50.6	78.7	19.5	59.2	51.4	82.3	19.4	62.8
2038	51.1	82.3	19.6	62.6	50.7	80.4	19.7	60.8	51.5	84.1	19.6	64.5
2039	51.2	84.0	19.8	64.2	50.8	82.1	19.8	62.3	51.6	86.0	19.8	66.2
2040	51.4	85.6	20.0	65.6	50.9	83.5	20.0	63.6	51.8	87.5	19.9	67.6
2041	51.5	86.9	20.1	66.8	51.0	84.8	20.1	64.7	51.9	88.9	20.1	68.9
2042	51.6	88.0	20.2	67.8	51.1	85.9	20.2	65.6	52.0	90.1	20.2	69.9
2043	51.7	89.0	20.3	68.7	51.2	86.8	20.3	66.5	52.1	91.2	20.3	70.9
2044	51.8	89.8	20.3	69.5	51.3	87.6	20.4	67.2	52.2	92.0	20.3	71.7
2045	51.9	90.6	20.4	70.2	51.4	88.3	20.4	67.9	52.3	92.8	20.4	72.5
2046	52.0	91.1	20.4	70.7	51.5	88.8	20.4	68.4	52.4	93.4	20.4	73.0
2047	52.0	91.7	20.4	71.3	51.6	89.3	20.4	68.9	52.5	94.0	20.4	73.6
2048	52.1	92.3	20.4	71.8	51.7	89.9	20.4	69.4	52.6	94.6	20.4	74.2
2049	52.2	92.8	20.4	72.4	51.8	90.4	20.4	69.9	52.7	95.2	20.4	74.8
2050	52.3	93.2	20.4	72.8	51.9	90.8	20.4	70.3	52.8	95.7	20.4	75.3
2051	52.4	93.5	20.4	73.1	51.9	91.0	20.4	70.6	52.9	96.0	20.4	75.6
2052	52.5	93.7	20.3	73.4	52.0	91.2	20.4	70.8	53.0	96.3	20.3	75.9
2053	52.6	93.9	20.3	73.6	52.1	91.3	20.3	71.0	53.1	96.4	20.3	76.2
2054	52.7	93.9	20.2	73.7	52.2	91.2	20.2	71.0	53.2	96.5	20.2	76.3
2055	52.8	93.8	20.1	73.7	52.3	91.1	20.2	71.0	53.3	96.5	20.1	76.4
2056	52.9	93.7	20.1	73.6	52.4	91.0	20.1	70.9	53.4	96.4	20.0	76.4
2057	53.0	93.6	20.0	73.7	52.5	90.9	20.0	70.8	53.5	96.4	20.0	76.4
2058	53.1	93.6	19.9	73.6	52.5	90.7	19.9	70.8	53.6	96.4	19.9	76.5
2059	53.2	93.6	19.9	73.7	52.6	90.7	19.9	70.8	53.7	96.5	19.9	76.6
2060	53.2	93.7	19.8	73.9	52.6	90.7	19.9	70.9	53.8	96.7	19.8	76.8
2061	53.3	93.8	19.8	74.0	52.7	90.8	19.8	70.9	53.9	96.8	19.8	77.0
2062	53.3	93.9	19.8	74.1	52.7	90.8	19.8	71.0	53.9	97.0	19.8	77.2
2063	53.4	94.1	19.8	74.3	52.7	91.0	19.8	71.2	54.0	97.3	19.8	77.5
2064	53.4	94.3	19.8	74.5	52.8	91.1	19.8	71.2	54.0	97.5	19.8	77.7
2065	53.4	94.5	19.8	74.6	52.8	91.2	19.8	71.4	54.0	97.7	19.8	77.9

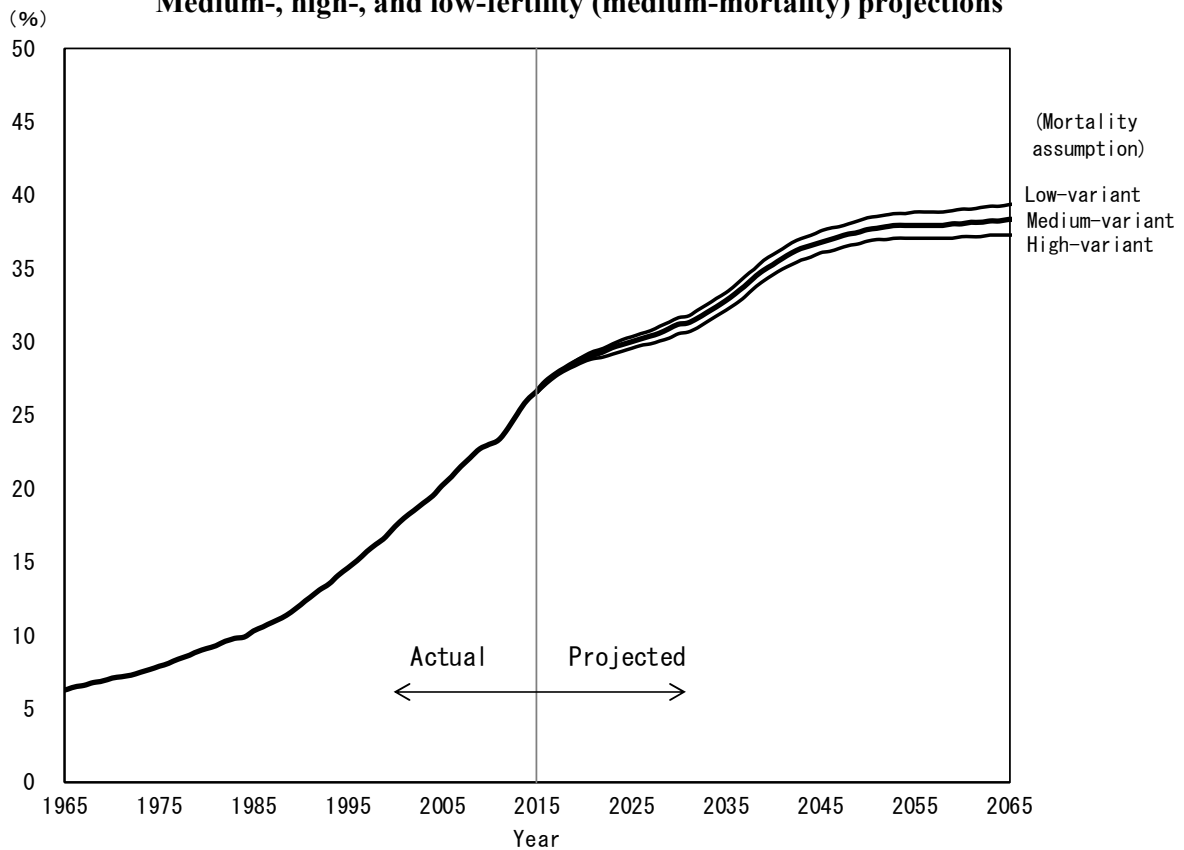
Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

The dependency ratio is a ratio obtained by dividing dependent population by the working-age population (15 to 64 years of age). This table shows the number of dependent people per 100 working-age people. The ratio of the young-age population only (under 15 years of age), out of the dependent population, divided by the working-age population is called the young-age dependency ratio, while the ratio of the old-age population only (aged 65 and over) divided by the working-age population is called the old-age dependency ratio; these indices are indicated simply as young-age and old-age population. The age dependency ratio is the sum of the young-age and old-age dependency ratio.

**Figure 2-1 Actual and projected population of Japan:  
Medium-fertility (medium-, high-, and low-mortality) projections**



**Figure 2-2 Trends in the proportion of elderly (aged 65 and over):  
Medium-, high-, and low-fertility (medium-mortality) projections**





## D. Comparison of Projection Variants



Table 3-1 Total population: Medium-, high-, and low-fertility (medium-, high-, and low-mortality) projections

(Thousand people)

Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2015	127,095	127,095	127,095	127,095	127,095	127,095	127,095	127,095	127,095
2016	126,838	126,864	126,812	126,758	126,784	126,733	126,912	126,938	126,887
2017	126,532	126,605	126,463	126,349	126,422	126,279	126,704	126,777	126,634
2018	126,177	126,315	126,046	125,895	126,034	125,764	126,441	126,580	126,310
2019	125,773	125,998	125,562	125,399	125,624	125,188	126,125	126,351	125,914
2020	125,325	125,658	125,016	124,864	125,197	124,556	125,761	126,094	125,452
2021	124,836	125,295	124,417	124,294	124,752	123,874	125,351	125,810	124,931
2022	124,310	124,907	123,770	123,691	124,287	123,151	124,900	125,496	124,359
2023	123,751	124,490	123,085	123,060	123,799	122,394	124,410	125,151	123,744
2024	123,161	124,046	122,367	122,403	123,288	121,610	123,887	124,772	123,093
2025	122,544	123,573	121,623	121,724	122,752	120,803	123,332	124,362	122,411
2026	121,903	123,073	120,856	121,024	122,193	119,978	122,750	123,920	121,703
2027	121,240	122,547	120,069	120,306	121,612	119,136	122,141	123,449	120,971
2028	120,555	121,995	119,264	119,570	121,009	118,279	121,508	122,949	120,217
2029	119,850	121,419	118,441	118,817	120,385	117,408	120,852	122,421	119,442
2030	119,125	120,819	117,600	118,047	119,740	116,522	120,172	121,867	118,646
2031	118,380	120,196	116,742	117,260	119,074	115,622	119,470	121,287	117,831
2032	117,616	119,550	115,866	116,456	118,389	114,707	118,747	120,681	116,996
2033	116,833	118,882	114,975	115,637	117,684	113,779	118,001	120,051	116,142
2034	116,033	118,194	114,068	114,802	116,962	112,838	117,236	119,399	115,270
2035	115,216	117,488	113,145	113,953	116,224	111,884	116,452	118,725	114,380
2036	114,383	116,764	112,208	113,091	115,471	110,918	115,649	118,032	113,473
2037	113,535	116,026	111,257	112,216	114,706	109,939	114,829	117,321	112,550
2038	112,674	115,274	110,292	111,331	113,929	108,950	113,994	116,595	111,611
2039	111,801	114,511	109,316	110,436	113,144	107,952	113,145	115,856	110,659
2040	110,919	113,739	108,329	109,533	112,352	106,945	112,284	115,106	109,693
2041	110,028	112,961	107,333	108,625	111,556	105,932	111,412	114,347	108,716
2042	109,131	112,179	106,330	107,713	110,759	104,914	110,532	113,581	107,729
2043	108,229	111,396	105,320	106,798	109,963	103,891	109,644	112,813	106,734
2044	107,326	110,614	104,306	105,884	109,170	102,867	108,753	112,044	105,732
2045	106,421	109,837	103,289	104,970	108,383	101,840	107,859	111,277	104,725
2046	105,518	109,066	102,269	104,058	107,604	100,812	106,964	110,515	103,714
2047	104,616	108,302	101,248	103,149	106,833	99,784	106,070	109,759	102,700
2048	103,716	107,548	100,224	102,242	106,071	98,754	105,177	109,011	101,683
2049	102,819	106,802	99,199	101,338	105,318	97,722	104,286	108,272	100,665
2050	101,923	106,065	98,172	100,435	104,574	96,687	103,398	107,542	99,644
2051	101,029	105,335	97,142	99,533	103,835	95,649	102,511	106,820	98,621
2052	100,135	104,611	96,108	98,629	103,102	94,606	101,625	106,104	97,595
2053	99,240	103,891	95,071	97,724	102,370	93,558	100,739	105,394	96,567
2054	98,342	103,172	94,028	96,814	101,639	92,503	99,852	104,686	95,534
2055	97,441	102,452	92,979	95,899	100,906	91,441	98,963	103,979	94,497
2056	96,534	101,729	91,923	94,978	100,168	90,371	98,070	103,270	93,455
2057	95,622	101,002	90,860	94,050	99,424	89,293	97,172	102,557	92,406
2058	94,702	100,267	89,790	93,114	98,674	88,207	96,268	101,838	91,351
2059	93,775	99,524	88,712	92,171	97,915	87,113	95,356	101,111	90,289
2060	92,840	98,773	87,626	91,221	97,148	86,013	94,437	100,376	89,219
2061	91,897	98,013	86,535	90,264	96,373	84,907	93,510	99,631	88,142
2062	90,949	97,245	85,437	89,302	95,591	83,797	92,575	98,878	87,059
2063	89,994	96,470	84,336	88,336	94,804	82,685	91,634	98,116	85,970
2064	89,036	95,688	83,232	87,369	94,013	81,572	90,687	97,346	84,877
2065	88,077	94,904	82,128	86,402	93,221	80,461	89,736	96,571	83,782

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 3-2 Projections of Proportion of Young-age Population (under 15): Medium-, high-, and low-fertility (medium-, high-, and low-mortality) projections

(%)

Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2015	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
2016	12.4	12.5	12.4	12.4	12.5	12.4	12.4	12.4	12.4
2017	12.3	12.4	12.3	12.3	12.4	12.3	12.3	12.4	12.3
2018	12.2	12.3	12.1	12.2	12.3	12.2	12.2	12.3	12.1
2019	12.1	12.3	12.0	12.1	12.3	12.0	12.1	12.2	11.9
2020	12.0	12.3	11.8	12.1	12.3	11.9	12.0	12.2	11.8
2021	11.9	12.3	11.6	12.0	12.3	11.7	11.9	12.2	11.6
2022	11.8	12.2	11.4	11.9	12.3	11.5	11.8	12.2	11.4
2023	11.7	12.2	11.2	11.8	12.3	11.3	11.6	12.2	11.2
2024	11.6	12.2	11.0	11.7	12.3	11.1	11.5	12.2	11.0
2025	11.5	12.2	10.8	11.6	12.3	10.9	11.4	12.1	10.7
2026	11.4	12.2	10.6	11.5	12.3	10.7	11.3	12.1	10.5
2027	11.3	12.2	10.4	11.4	12.3	10.5	11.2	12.1	10.3
2028	11.2	12.2	10.2	11.3	12.3	10.3	11.1	12.2	10.2
2029	11.1	12.3	10.1	11.2	12.4	10.2	11.1	12.2	10.0
2030	11.1	12.3	9.9	11.2	12.4	10.0	11.0	12.2	9.9
2031	11.0	12.3	9.8	11.1	12.4	9.9	10.9	12.2	9.7
2032	10.9	12.3	9.7	11.0	12.4	9.7	10.8	12.2	9.6
2033	10.9	12.3	9.6	11.0	12.4	9.6	10.8	12.2	9.5
2034	10.8	12.3	9.5	11.0	12.4	9.6	10.7	12.2	9.4
2035	10.8	12.3	9.5	10.9	12.4	9.6	10.7	12.1	9.4
2036	10.8	12.2	9.4	10.9	12.3	9.5	10.7	12.1	9.3
2037	10.8	12.2	9.4	10.9	12.3	9.5	10.7	12.1	9.3
2038	10.8	12.1	9.5	10.9	12.3	9.6	10.7	12.0	9.3
2039	10.8	12.1	9.5	10.9	12.2	9.6	10.6	12.0	9.4
2040	10.8	12.1	9.5	10.9	12.2	9.6	10.6	11.9	9.4
2041	10.8	12.0	9.5	10.9	12.2	9.6	10.6	11.9	9.4
2042	10.7	12.0	9.5	10.9	12.1	9.6	10.6	11.9	9.4
2043	10.7	12.0	9.5	10.9	12.1	9.6	10.6	11.8	9.4
2044	10.7	11.9	9.5	10.9	12.1	9.6	10.6	11.8	9.4
2045	10.7	11.9	9.5	10.8	12.1	9.6	10.6	11.8	9.4
2046	10.7	11.9	9.5	10.8	12.0	9.6	10.5	11.7	9.3
2047	10.7	11.9	9.4	10.8	12.0	9.6	10.5	11.7	9.3
2048	10.6	11.9	9.4	10.8	12.0	9.5	10.5	11.7	9.3
2049	10.6	11.9	9.4	10.7	12.0	9.5	10.5	11.7	9.2
2050	10.6	11.9	9.3	10.7	12.0	9.4	10.4	11.7	9.2
2051	10.5	11.9	9.3	10.7	12.0	9.4	10.4	11.7	9.1
2052	10.5	11.9	9.2	10.6	12.0	9.3	10.4	11.7	9.1
2053	10.5	11.9	9.1	10.6	12.1	9.2	10.3	11.7	9.0
2054	10.4	11.9	9.0	10.6	12.1	9.2	10.3	11.8	8.9
2055	10.4	11.9	9.0	10.5	12.1	9.1	10.2	11.8	8.8
2056	10.4	12.0	8.9	10.5	12.1	9.0	10.2	11.8	8.7
2057	10.3	12.0	8.8	10.5	12.2	8.9	10.2	11.8	8.6
2058	10.3	12.0	8.7	10.5	12.2	8.9	10.1	11.9	8.6
2059	10.3	12.1	8.6	10.4	12.3	8.8	10.1	11.9	8.5
2060	10.2	12.1	8.6	10.4	12.3	8.7	10.1	11.9	8.4
2061	10.2	12.1	8.5	10.4	12.3	8.6	10.1	11.9	8.3
2062	10.2	12.2	8.4	10.4	12.4	8.6	10.0	12.0	8.3
2063	10.2	12.2	8.4	10.4	12.4	8.6	10.0	12.0	8.2
2064	10.2	12.2	8.4	10.4	12.4	8.5	10.0	12.0	8.2
2065	10.2	12.2	8.3	10.4	12.4	8.5	10.0	12.0	8.2

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 3-3 Projections of Proportion of Working-age Population (15-64): Medium-, high-, and low-fertility (medium-, high-, and low-mortality) projections

(%)

Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2015	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
2016	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
2017	59.9	59.9	59.9	60.0	59.9	60.0	59.8	59.8	59.9
2018	59.6	59.5	59.6	59.7	59.6	59.7	59.5	59.4	59.5
2019	59.3	59.2	59.4	59.5	59.4	59.6	59.2	59.1	59.3
2020	59.1	58.9	59.2	59.3	59.1	59.4	58.9	58.8	59.1
2021	58.9	58.7	59.1	59.1	58.9	59.3	58.7	58.5	58.9
2022	58.8	58.5	59.1	59.1	58.8	59.3	58.6	58.3	58.8
2023	58.7	58.4	59.1	59.0	58.7	59.3	58.5	58.1	58.8
2024	58.6	58.2	59.0	58.9	58.5	59.3	58.3	57.9	58.7
2025	58.5	58.0	59.0	58.8	58.4	59.3	58.2	57.7	58.6
2026	58.4	57.9	58.9	58.8	58.2	59.3	58.1	57.5	58.6
2027	58.3	57.7	58.9	58.7	58.1	59.3	58.0	57.3	58.5
2028	58.2	57.5	58.8	58.6	57.9	59.2	57.8	57.1	58.4
2029	58.0	57.2	58.7	58.4	57.7	59.1	57.6	56.8	58.3
2030	57.7	56.9	58.5	58.2	57.3	58.9	57.3	56.5	58.0
2031	57.7	56.9	58.5	58.2	57.3	59.0	57.3	56.5	58.1
2032	57.4	56.6	58.2	57.9	57.0	58.7	57.0	56.1	57.8
2033	57.1	56.3	57.9	57.6	56.7	58.5	56.6	55.8	57.4
2034	56.8	55.9	57.6	57.3	56.4	58.1	56.3	55.4	57.0
2035	56.4	55.6	57.1	56.9	56.1	57.7	55.8	55.1	56.6
2036	55.9	55.2	56.6	56.5	55.7	57.2	55.4	54.7	56.1
2037	55.4	54.7	56.1	56.0	55.3	56.6	54.9	54.2	55.5
2038	54.9	54.3	55.4	55.4	54.8	56.0	54.3	53.7	54.9
2039	54.3	53.8	54.8	54.9	54.4	55.4	53.8	53.3	54.3
2040	53.9	53.5	54.3	54.5	54.0	54.9	53.3	52.9	53.7
2041	53.5	53.2	53.9	54.1	53.7	54.5	52.9	52.6	53.3
2042	53.2	52.9	53.5	53.8	53.5	54.1	52.6	52.4	52.9
2043	52.9	52.7	53.1	53.5	53.3	53.8	52.3	52.1	52.5
2044	52.7	52.6	52.8	53.3	53.2	53.5	52.1	52.0	52.2
2045	52.5	52.4	52.6	53.1	53.0	53.2	51.9	51.8	51.9
2046	52.3	52.3	52.3	53.0	52.9	53.0	51.7	51.7	51.7
2047	52.2	52.2	52.1	52.8	52.8	52.8	51.5	51.6	51.5
2048	52.0	52.1	51.9	52.7	52.7	52.6	51.4	51.5	51.3
2049	51.9	52.0	51.7	52.5	52.6	52.4	51.2	51.4	51.1
2050	51.8	51.9	51.6	52.4	52.6	52.3	51.1	51.3	50.9
2051	51.7	51.9	51.4	52.4	52.5	52.1	51.0	51.3	50.8
2052	51.6	51.9	51.3	52.3	52.5	52.1	51.0	51.2	50.7
2053	51.6	51.8	51.3	52.3	52.5	52.0	50.9	51.2	50.6
2054	51.6	51.9	51.2	52.3	52.5	52.0	50.9	51.2	50.5
2055	51.6	51.9	51.2	52.3	52.6	52.0	50.9	51.2	50.5
2056	51.6	52.0	51.2	52.4	52.7	52.0	50.9	51.3	50.5
2057	51.6	52.0	51.2	52.4	52.7	52.0	50.9	51.3	50.4
2058	51.7	52.0	51.2	52.4	52.8	52.0	50.9	51.3	50.4
2059	51.7	52.1	51.1	52.4	52.8	51.9	50.9	51.3	50.3
2060	51.6	52.1	51.0	52.4	52.8	51.9	50.9	51.3	50.2
2061	51.6	52.1	51.0	52.4	52.9	51.8	50.8	51.3	50.1
2062	51.6	52.1	50.9	52.4	52.9	51.7	50.8	51.3	50.0
2063	51.5	52.1	50.8	52.4	52.9	51.6	50.7	51.3	49.9
2064	51.5	52.1	50.6	52.3	52.9	51.5	50.6	51.3	49.8
2065	51.4	52.2	50.5	52.3	53.0	51.4	50.6	51.4	49.6

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 3-4 Projections of Proportion of Old Age Population (65 and over): Medium-, high-, and low-fertility (medium-, high-, and low-mortality) projections

(%)

Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2015	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
2016	27.3	27.3	27.3	27.2	27.2	27.2	27.3	27.3	27.3
2017	27.8	27.8	27.8	27.7	27.7	27.7	27.9	27.9	27.9
2018	28.2	28.2	28.2	28.1	28.1	28.1	28.3	28.3	28.4
2019	28.6	28.5	28.6	28.4	28.3	28.4	28.7	28.7	28.8
2020	28.9	28.8	28.9	28.7	28.6	28.7	29.1	29.0	29.2
2021	29.1	29.0	29.2	28.9	28.8	29.0	29.4	29.3	29.5
2022	29.3	29.2	29.5	29.0	28.9	29.2	29.6	29.5	29.8
2023	29.6	29.4	29.7	29.2	29.0	29.4	29.9	29.7	30.0
2024	29.8	29.6	30.0	29.4	29.2	29.6	30.2	29.9	30.4
2025	30.0	29.8	30.2	29.6	29.3	29.8	30.4	30.1	30.6
2026	30.2	29.9	30.5	29.8	29.5	30.0	30.6	30.3	30.9
2027	30.4	30.1	30.7	29.9	29.6	30.2	30.8	30.5	31.1
2028	30.6	30.3	30.9	30.1	29.8	30.4	31.1	30.7	31.4
2029	30.9	30.5	31.2	30.3	29.9	30.7	31.4	31.0	31.7
2030	31.2	30.8	31.6	30.6	30.2	31.1	31.7	31.3	32.1
2031	31.3	30.8	31.7	30.7	30.2	31.1	31.8	31.3	32.2
2032	31.6	31.1	32.1	31.0	30.5	31.5	32.2	31.7	32.7
2033	32.0	31.4	32.5	31.4	30.8	31.9	32.6	32.0	33.1
2034	32.4	31.8	33.0	31.8	31.2	32.3	33.0	32.4	33.6
2035	32.8	32.2	33.4	32.2	31.5	32.8	33.4	32.8	34.1
2036	33.3	32.6	33.9	32.6	32.0	33.3	33.9	33.3	34.6
2037	33.8	33.1	34.5	33.1	32.4	33.8	34.5	33.7	35.2
2038	34.4	33.6	35.1	33.7	32.9	34.4	35.0	34.3	35.8
2039	34.9	34.1	35.7	34.2	33.4	35.0	35.6	34.8	36.4
2040	35.3	34.5	36.2	34.6	33.8	35.5	36.0	35.2	36.9
2041	35.7	34.8	36.6	35.0	34.1	35.9	36.4	35.5	37.3
2042	36.1	35.1	37.0	35.3	34.3	36.3	36.8	35.8	37.7
2043	36.4	35.3	37.4	35.6	34.6	36.6	37.1	36.0	38.1
2044	36.6	35.5	37.7	35.8	34.8	36.9	37.3	36.2	38.4
2045	36.8	35.7	37.9	36.1	34.9	37.2	37.6	36.4	38.7
2046	37.0	35.8	38.2	36.2	35.0	37.4	37.8	36.6	38.9
2047	37.2	35.9	38.4	36.4	35.1	37.6	37.9	36.7	39.2
2048	37.4	36.0	38.7	36.6	35.2	37.9	38.1	36.8	39.4
2049	37.5	36.1	38.9	36.7	35.3	38.1	38.3	36.9	39.7
2050	37.7	36.2	39.1	36.9	35.4	38.3	38.5	37.0	39.9
2051	37.8	36.2	39.3	37.0	35.4	38.5	38.6	37.0	40.1
2052	37.9	36.3	39.5	37.0	35.4	38.6	38.7	37.1	40.3
2053	38.0	36.3	39.6	37.1	35.4	38.8	38.8	37.1	40.5
2054	38.0	36.2	39.7	37.1	35.4	38.9	38.8	37.0	40.6
2055	38.0	36.2	39.8	37.1	35.3	38.9	38.9	37.0	40.7
2056	38.0	36.1	39.9	37.1	35.2	39.0	38.9	36.9	40.8
2057	38.0	36.0	40.0	37.1	35.1	39.1	38.9	36.9	40.9
2058	38.0	35.9	40.1	37.1	35.0	39.2	38.9	36.8	41.0
2059	38.1	35.9	40.3	37.1	34.9	39.3	39.0	36.8	41.2
2060	38.1	35.8	40.4	37.2	34.9	39.4	39.1	36.8	41.4
2061	38.2	35.8	40.5	37.2	34.8	39.5	39.1	36.7	41.5
2062	38.2	35.8	40.7	37.2	34.8	39.7	39.2	36.7	41.7
2063	38.3	35.7	40.9	37.3	34.7	39.8	39.3	36.7	41.9
2064	38.3	35.7	41.0	37.3	34.7	39.9	39.3	36.7	42.0
2065	38.4	35.6	41.2	37.3	34.6	40.1	39.4	36.6	42.2

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

## E. Assumption Values





Table 4-1 Development of the Total Fertility Rate

Year	Medium fertility	High fertility	Low fertility
2015	1.4504	1.4504	1.4504
2016	1.4441	1.4946	1.3953
2017	1.4405	1.5161	1.3685
2018	1.4353	1.5431	1.3349
2019	1.4287	1.5727	1.2971
2020	1.4263	1.6060	1.2652
2021	1.4234	1.6324	1.2386
2022	1.4207	1.6497	1.2198
2023	1.4190	1.6588	1.2088
2024	1.4185	1.6620	1.2042
2025	1.4193	1.6619	1.2043
2026	1.4209	1.6600	1.2072
2027	1.4229	1.6572	1.2115
2028	1.4249	1.6541	1.2162
2029	1.4266	1.6510	1.2207
2030	1.4280	1.6479	1.2246
2031	1.4290	1.6450	1.2281
2032	1.4299	1.6424	1.2312
2033	1.4307	1.6404	1.2336
2034	1.4314	1.6388	1.2357
2035	1.4319	1.6377	1.2373
2036	1.4325	1.6369	1.2387
2037	1.4330	1.6364	1.2400
2038	1.4336	1.6361	1.2410
2039	1.4342	1.6361	1.2421
2040	1.4348	1.6362	1.2431
2041	1.4355	1.6363	1.2441
2042	1.4362	1.6365	1.2451
2043	1.4368	1.6366	1.2461
2044	1.4374	1.6367	1.2471
2045	1.4380	1.6368	1.2481
2046	1.4387	1.6369	1.2491
2047	1.4393	1.6371	1.2501
2048	1.4398	1.6373	1.2510
2049	1.4404	1.6377	1.2518
2050	1.4409	1.6381	1.2524
2051	1.4413	1.6387	1.2527
2052	1.4416	1.6393	1.2529
2053	1.4418	1.6399	1.2528
2054	1.4419	1.6405	1.2526
2055	1.4420	1.6410	1.2523
2056	1.4420	1.6416	1.2519
2057	1.4421	1.6421	1.2516
2058	1.4421	1.6427	1.2513
2059	1.4422	1.6432	1.2510
2060	1.4424	1.6437	1.2508
2061	1.4425	1.6441	1.2507
2062	1.4427	1.6444	1.2506
2063	1.4429	1.6448	1.2507
2064	1.4431	1.6450	1.2508
2065	1.4433	1.6452	1.2510

Total fertility rate based on the same definition as the Vital Statistics. Figures for 2015 are actual values. Subsequent figures are based on medium-mortality projections.

Table 4-2 Development of Life Expectancy at Birth by Sex

Year	(Years)								
	Medium mortality			High mortality			Low mortality		
	Male	Female	Sex	Male	Female	Sex	Male	Female	Sex
2015	80.75	86.98	6.23	80.75	86.98	6.23	80.75	86.98	6.23
2016	80.86	87.14	6.28	80.08	86.32	6.25	81.63	87.94	6.31
2017	80.98	87.27	6.29	80.20	86.45	6.25	81.75	88.07	6.32
2018	81.10	87.39	6.29	80.32	86.57	6.25	81.88	88.20	6.32
2019	81.22	87.52	6.29	80.44	86.69	6.26	82.00	88.32	6.33
2020	81.34	87.64	6.30	80.55	86.81	6.26	82.12	88.45	6.33
2021	81.45	87.75	6.30	80.66	86.93	6.27	82.23	88.57	6.33
2022	81.57	87.87	6.31	80.77	87.04	6.27	82.35	88.69	6.34
2023	81.68	87.98	6.31	80.88	87.15	6.28	82.46	88.80	6.34
2024	81.78	88.10	6.31	80.98	87.26	6.28	82.57	88.92	6.34
2025	81.89	88.21	6.32	81.08	87.37	6.28	82.68	89.03	6.35
2026	81.99	88.31	6.32	81.18	87.47	6.29	82.79	89.14	6.35
2027	82.10	88.42	6.32	81.28	87.57	6.29	82.90	89.25	6.35
2028	82.20	88.52	6.33	81.38	87.67	6.29	83.00	89.36	6.36
2029	82.29	88.62	6.33	81.47	87.77	6.30	83.11	89.47	6.36
2030	82.39	88.72	6.33	81.56	87.86	6.30	83.21	89.57	6.36
2031	82.49	88.82	6.34	81.65	87.96	6.30	83.31	89.68	6.37
2032	82.58	88.92	6.34	81.74	88.05	6.31	83.41	89.78	6.37
2033	82.67	89.01	6.34	81.82	88.13	6.31	83.51	89.88	6.37
2034	82.76	89.11	6.35	81.91	88.22	6.31	83.60	89.98	6.37
2035	82.85	89.20	6.35	81.99	88.31	6.32	83.70	90.07	6.38
2036	82.94	89.29	6.35	82.07	88.39	6.32	83.79	90.17	6.38
2037	83.02	89.38	6.35	82.15	88.47	6.32	83.88	90.26	6.38
2038	83.11	89.46	6.36	82.23	88.55	6.32	83.97	90.36	6.38
2039	83.19	89.55	6.36	82.30	88.63	6.33	84.06	90.45	6.39
2040	83.27	89.63	6.36	82.38	88.71	6.33	84.15	90.54	6.39
2041	83.35	89.72	6.36	82.45	88.78	6.33	84.24	90.63	6.39
2042	83.43	89.80	6.37	82.52	88.86	6.33	84.33	90.72	6.39
2043	83.51	89.88	6.37	82.59	88.93	6.34	84.41	90.81	6.39
2044	83.59	89.95	6.37	82.66	89.00	6.34	84.50	90.89	6.40
2045	83.66	90.03	6.37	82.73	89.07	6.34	84.58	90.98	6.40
2046	83.73	90.11	6.37	82.79	89.14	6.34	84.66	91.06	6.40
2047	83.81	90.18	6.38	82.86	89.20	6.35	84.74	91.15	6.40
2048	83.88	90.26	6.38	82.92	89.27	6.35	84.82	91.23	6.40
2049	83.95	90.33	6.38	82.98	89.33	6.35	84.90	91.31	6.41
2050	84.02	90.40	6.38	83.04	89.39	6.35	84.98	91.39	6.41
2051	84.09	90.47	6.38	83.10	89.46	6.35	85.06	91.47	6.41
2052	84.16	90.54	6.39	83.16	89.52	6.36	85.13	91.55	6.41
2053	84.22	90.61	6.39	83.22	89.58	6.36	85.21	91.62	6.41
2054	84.29	90.68	6.39	83.28	89.63	6.36	85.28	91.70	6.41
2055	84.35	90.74	6.39	83.33	89.69	6.36	85.36	91.77	6.42
2056	84.42	90.81	6.39	83.38	89.75	6.36	85.43	91.85	6.42
2057	84.48	90.87	6.39	83.44	89.80	6.36	85.50	91.92	6.42
2058	84.54	90.94	6.40	83.49	89.86	6.37	85.57	91.99	6.42
2059	84.60	91.00	6.40	83.54	89.91	6.37	85.64	92.06	6.42
2060	84.66	91.06	6.40	83.59	89.96	6.37	85.71	92.13	6.42
2061	84.72	91.12	6.40	83.64	90.01	6.37	85.78	92.20	6.42
2062	84.78	91.18	6.40	83.69	90.06	6.37	85.85	92.27	6.43
2063	84.84	91.24	6.40	83.74	90.11	6.37	85.91	92.34	6.43
2064	84.89	91.30	6.40	83.79	90.16	6.37	85.98	92.41	6.43
2065	84.95	91.35	6.41	83.83	90.21	6.38	86.05	92.48	6.43

Figures for 2015 are actual values.

Table 4-3 Age-specific net international migration rates by sex for Japanese

Age at the year end	Male	Female	Age at the year end	Male	Female
0	-0.00014	-0.00017	55	-0.00008	0.00000
1	-0.00043	-0.00050	56	-0.00008	0.00001
2	-0.00050	-0.00059	57	-0.00007	0.00001
3	-0.00041	-0.00048	58	-0.00004	0.00000
4	-0.00029	-0.00029	59	-0.00003	-0.00001
5	-0.00023	-0.00016	60	-0.00002	-0.00003
6	-0.00022	-0.00011	61	-0.00002	-0.00004
7	-0.00016	-0.00007	62	0.00000	-0.00003
8	-0.00006	-0.00004	63	0.00003	-0.00002
9	0.00005	0.00002	64	0.00005	-0.00002
10	0.00014	0.00009	65	0.00005	-0.00002
11	0.00019	0.00017	66	0.00004	-0.00001
12	0.00024	0.00024	67	0.00004	-0.00001
13	0.00027	0.00025	68	0.00004	-0.00001
14	0.00021	0.00007	69	0.00004	-0.00001
15	0.00013	-0.00007	70	0.00004	-0.00002
16	0.00004	-0.00007	71	0.00004	-0.00002
17	-0.00013	-0.00032	72	0.00005	-0.00001
18	-0.00058	-0.00114	73	0.00005	0.00000
19	-0.00109	-0.00190	74	0.00005	0.00000
20	-0.00131	-0.00196	75	0.00004	0.00000
21	-0.00107	-0.00121	76	0.00004	0.00000
22	-0.00047	-0.00012	77	0.00003	0.00000
23	0.00006	0.00047	78	0.00003	0.00000
24	0.00016	0.00011	79	0.00002	-0.00001
25	-0.00010	-0.00062	80	0.00001	-0.00001
26	-0.00041	-0.00099	81	0.00000	0.00000
27	-0.00056	-0.00095	82	0.00001	0.00000
28	-0.00065	-0.00092	83	0.00001	0.00000
29	-0.00067	-0.00087	84	0.00001	0.00000
30	-0.00062	-0.00076	85	0.00000	0.00000
31	-0.00053	-0.00059	86	0.00000	0.00000
32	-0.00043	-0.00040	87	0.00000	0.00000
33	-0.00035	-0.00027	88	0.00000	0.00000
34	-0.00033	-0.00024	89	-0.00001	-0.00001
35	-0.00032	-0.00025	90	0.00000	0.00000
36	-0.00031	-0.00025	91	0.00000	0.00000
37	-0.00026	-0.00019	92	0.00000	0.00000
38	-0.00020	-0.00012	93	0.00000	0.00000
39	-0.00015	-0.00007	94	0.00000	0.00000
40	-0.00012	-0.00001	95	0.00000	0.00000
41	-0.00009	0.00004	96	0.00000	0.00000
42	-0.00008	0.00008	97	0.00000	0.00000
43	-0.00008	0.00012	98	0.00000	0.00000
44	-0.00007	0.00014	99	0.00000	0.00000
45	-0.00004	0.00016	100	0.00000	0.00000
46	-0.00001	0.00015	101	0.00000	0.00000
47	-0.00001	0.00014	102	0.00000	0.00000
48	-0.00004	0.00012	103	0.00000	0.00000
49	-0.00009	0.00009	104	0.00000	0.00000
50	-0.00013	0.00006	105+	0.00000	0.00000
51	-0.00014	0.00004			
52	-0.00011	0.00001			
53	-0.00009	0.00000			
54	-0.00008	0.00000			

Ratio of net international migration of Japanese to the total Japanese population.

Table 4-4 Number of net migrants of non-Japanese origin by sex

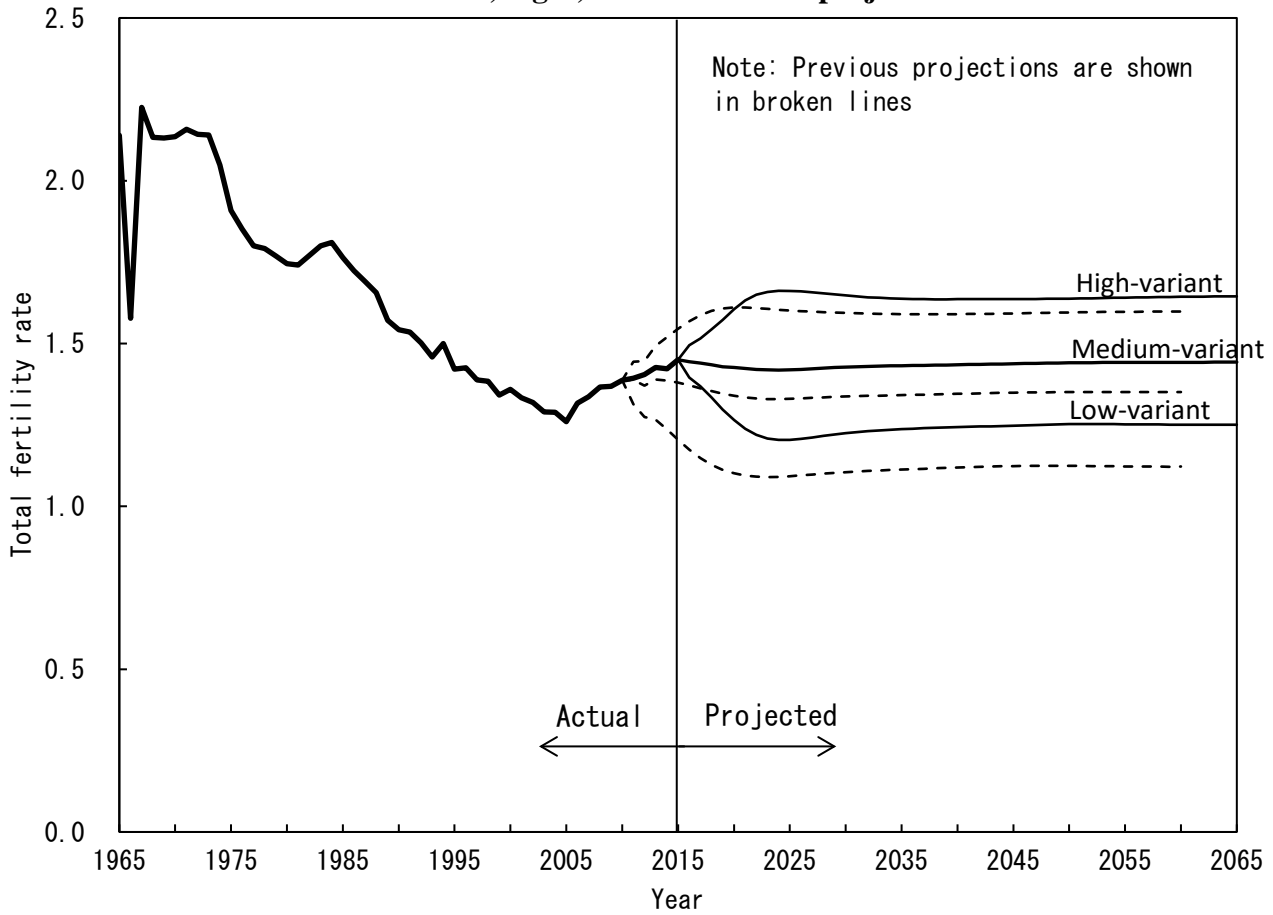
						(Persons)		
Age at the year end	Male	Female	Age at the year end	Male	Female	Age at the year end	Male	Female
2016	33,651	35,126	2023	33,834	35,317	2030	33,883	35,369
2017	33,693	35,171	2024	33,845	35,330	2031	33,886	35,372
2018	33,729	35,208	2025	33,855	35,340	2032	33,889	35,375
2019	33,758	35,239	2026	33,863	35,348	2033	33,891	35,377
2020	33,783	35,264	2027	33,870	35,355	2034	33,893	35,379
2021	33,803	35,285	2028	33,875	35,360	2035	33,894	35,380
2022	33,820	35,303	2029	33,880	35,365			

Table 4-5 Age distributions of net migrants of non-Japanese origin by sex

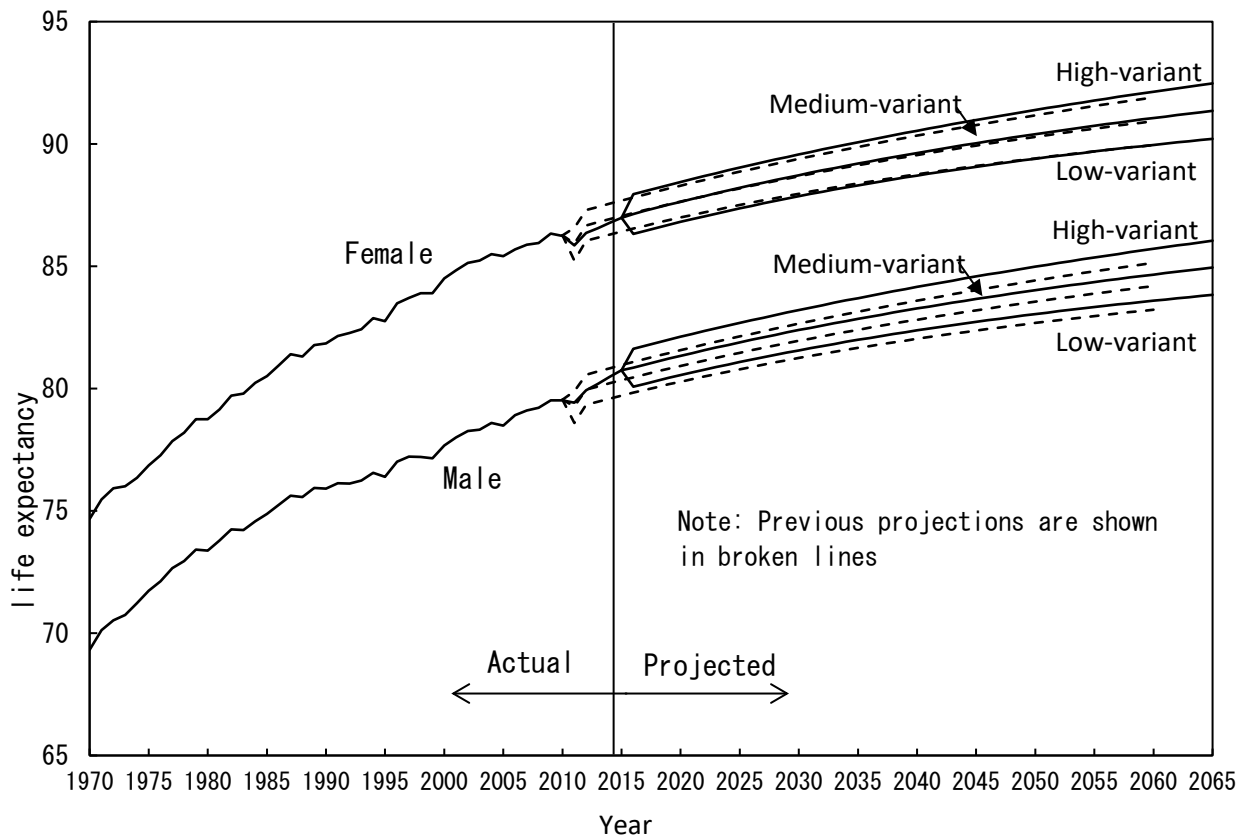
Age at the year end	Male	Female	Age at the year end	Male	Female
0	0.00310	0.00346	55	-0.00214	-0.00168
1	0.00491	0.00590	56	-0.00204	-0.00157
2	0.00520	0.00646	57	-0.00222	-0.00160
3	0.00428	0.00536	58	-0.00247	-0.00176
4	0.00293	0.00374	59	-0.00255	-0.00190
5	0.00211	0.00280	60	-0.00239	-0.00198
6	0.00222	0.00309	61	-0.00200	-0.00192
7	0.00268	0.00378	62	-0.00165	-0.00171
8	0.00323	0.00435	63	-0.00147	-0.00145
9	0.00372	0.00456	64	-0.00140	-0.00125
10	0.00393	0.00442	65	-0.00132	-0.00111
11	0.00380	0.00414	66	-0.00113	-0.00097
12	0.00362	0.00414	67	-0.00092	-0.00082
13	0.00432	0.00500	68	-0.00076	-0.00070
14	0.00502	0.00465	69	-0.00066	-0.00059
15	0.00534	0.00522	70	-0.00052	-0.00055
16	0.01220	0.01497	71	-0.00027	-0.00048
17	0.03094	0.04007	72	-0.00003	-0.00042
18	0.05564	0.07449	73	0.00006	-0.00035
19	0.07815	0.10419	74	0.00001	-0.00027
20	0.09390	0.11697	75	-0.00010	-0.00024
21	0.10156	0.10960	76	-0.00013	-0.00021
22	0.10303	0.09021	77	-0.00011	-0.00016
23	0.10021	0.07114	78	-0.00007	-0.00010
24	0.09095	0.05656	79	-0.00002	-0.00003
25	0.07406	0.04586	80	0.00000	-0.00001
26	0.05707	0.03821	81	0.00000	-0.00004
27	0.04593	0.03327	82	-0.00001	-0.00009
28	0.03817	0.02879	83	-0.00003	-0.00009
29	0.03118	0.02355	84	-0.00002	-0.00007
30	0.02468	0.01828	85	-0.00001	-0.00004
31	0.01895	0.01395	86	-0.00001	-0.00002
32	0.01471	0.01090	87	-0.00003	-0.00001
33	0.01138	0.00891	88	-0.00004	-0.00002
34	0.00769	0.00728	89	-0.00001	-0.00003
35	0.00370	0.00576	90	0.00000	0.00000
36	0.00040	0.00462	91	0.00000	0.00000
37	-0.00135	0.00437	92	0.00000	0.00000
38	-0.00155	0.00492	93	0.00000	0.00000
39	-0.00125	0.00540	94	0.00000	0.00000
40	-0.00115	0.00536	95	0.00000	0.00000
41	-0.00135	0.00489	96	0.00000	0.00000
42	-0.00138	0.00424	97	0.00000	0.00000
43	-0.00118	0.00357	98	0.00000	0.00000
44	-0.00105	0.00292	99	0.00000	0.00000
45	-0.00109	0.00224	100	0.00000	0.00000
46	-0.00135	0.00156	101	0.00000	0.00000
47	-0.00154	0.00099	102	0.00000	0.00000
48	-0.00148	0.00055	103	0.00000	0.00000
49	-0.00142	0.00021	104	0.00000	0.00000
50	-0.00166	-0.00014	105+	0.00000	0.00000
51	-0.00211	-0.00070			
52	-0.00252	-0.00129			
53	-0.00263	-0.00171			
54	-0.00243	-0.00182			

Age distributions assuming the total net migrants of non-Japanese origin as 1 for each sex respectively.

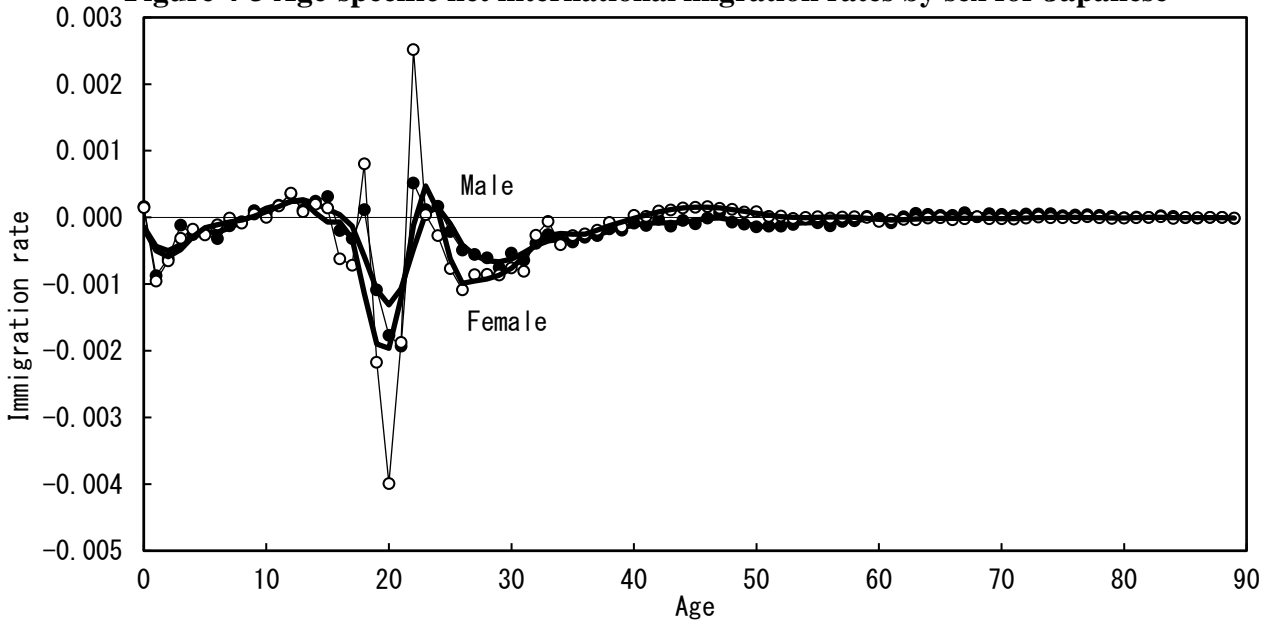
**Figure 4-1 Trends of the total fertility rate:  
Medium-, high-, and low-variant projections**



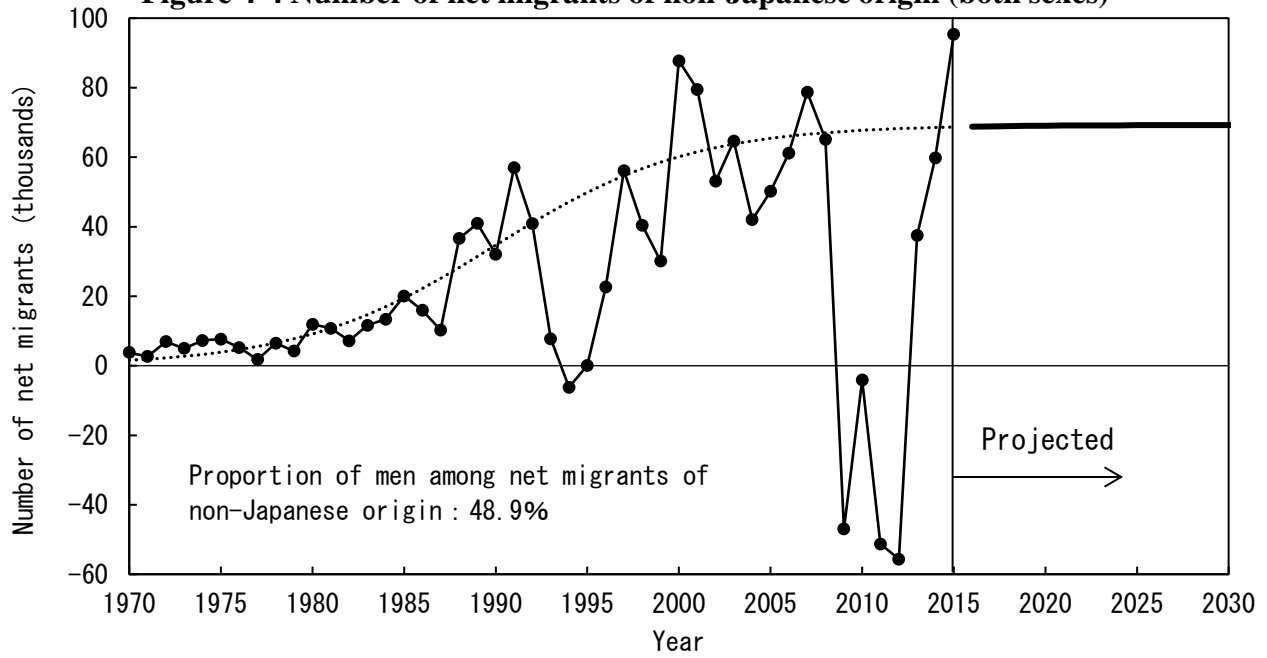
**Figure 4-2 Trends of life expectancy:  
Medium-, high-, and low-variant projections**



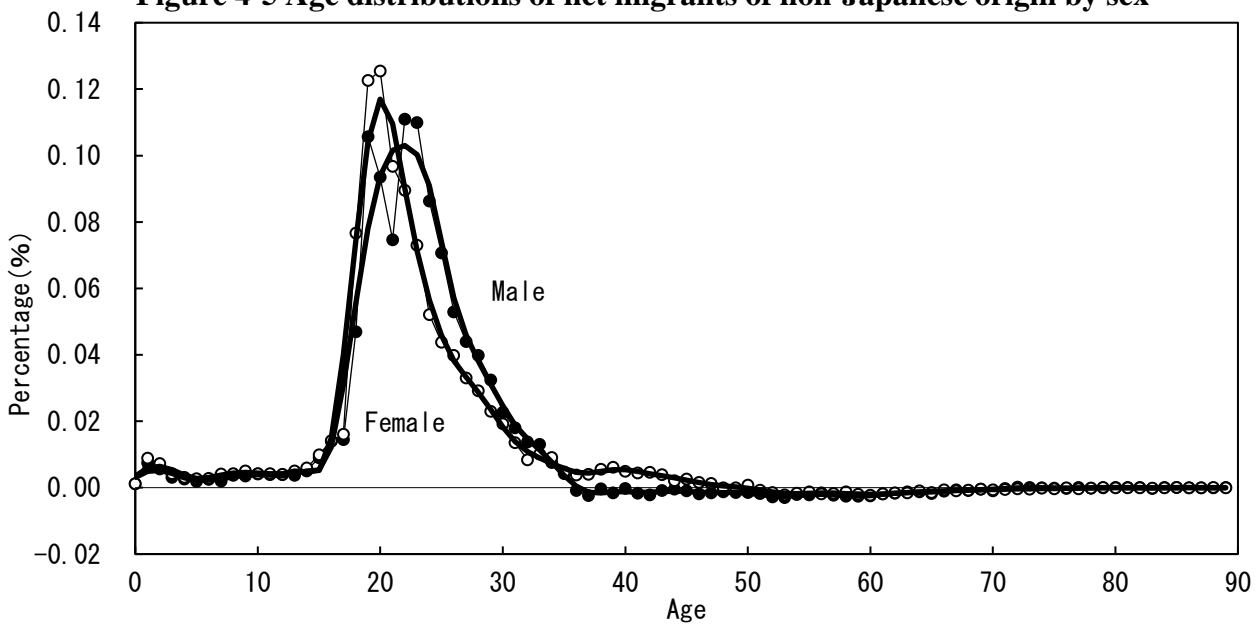
**Figure 4-3 Age-specific net international migration rates by sex for Japanese**



**Figure 4-4 Number of net migrants of non-Japanese origin (both sexes)**



**Figure 4-5 Age distributions of net migrants of non-Japanese origin by sex**



## F. Results of Auxiliary Projections

We made auxiliary projections for the period from 2066 to 2115, which may be used as a reference for analysis of long-term population projections. In these projections, the survival rate, fertility rate, sex ratio at birth, and international migration rate are assumed to remain constant from 2066.





Table 5-1 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2066	87,110	8,880	44,768	33,462	10.2	51.4	38.4
2067	86,139	8,789	44,251	33,099	10.2	51.4	38.4
2068	85,165	8,700	43,756	32,709	10.2	51.4	38.4
2069	84,193	8,614	43,271	32,308	10.2	51.4	38.4
2070	83,227	8,530	42,813	31,884	10.2	51.4	38.3
2071	82,268	8,447	42,349	31,472	10.3	51.5	38.3
2072	81,321	8,365	41,871	31,084	10.3	51.5	38.2
2073	80,386	8,283	41,380	30,723	10.3	51.5	38.2
2074	79,467	8,201	40,901	30,365	10.3	51.5	38.2
2075	78,564	8,119	40,427	30,018	10.3	51.5	38.2
2076	77,678	8,037	39,951	29,690	10.3	51.4	38.2
2077	76,809	7,953	39,496	29,359	10.4	51.4	38.2
2078	75,957	7,869	39,043	29,045	10.4	51.4	38.2
2079	75,120	7,784	38,620	28,717	10.4	51.4	38.2
2080	74,299	7,698	38,205	28,397	10.4	51.4	38.2
2081	73,492	7,611	37,749	28,132	10.4	51.4	38.3
2082	72,698	7,524	37,313	27,861	10.3	51.3	38.3
2083	71,916	7,436	36,895	27,584	10.3	51.3	38.4
2084	71,144	7,349	36,495	27,300	10.3	51.3	38.4
2085	70,381	7,262	36,109	27,011	10.3	51.3	38.4
2086	69,627	7,175	35,734	26,718	10.3	51.3	38.4
2087	68,881	7,089	35,368	26,424	10.3	51.3	38.4
2088	68,142	7,003	35,009	26,130	10.3	51.4	38.3
2089	67,409	6,919	34,652	25,837	10.3	51.4	38.3
2090	66,681	6,837	34,298	25,547	10.3	51.4	38.3
2091	65,959	6,756	33,943	25,261	10.2	51.5	38.3
2092	65,243	6,677	33,587	24,979	10.2	51.5	38.3
2093	64,531	6,599	33,229	24,703	10.2	51.5	38.3
2094	63,826	6,524	32,871	24,430	10.2	51.5	38.3
2095	63,125	6,450	32,512	24,162	10.2	51.5	38.3
2096	62,431	6,379	32,154	23,898	10.2	51.5	38.3
2097	61,743	6,309	31,797	23,636	10.2	51.5	38.3
2098	61,061	6,241	31,442	23,378	10.2	51.5	38.3
2099	60,386	6,175	31,088	23,122	10.2	51.5	38.3
2100	59,718	6,110	30,737	22,870	10.2	51.5	38.3
2101	59,057	6,047	30,389	22,621	10.2	51.5	38.3
2102	58,403	5,984	30,043	22,375	10.2	51.4	38.3
2103	57,756	5,922	29,701	22,133	10.3	51.4	38.3
2104	57,117	5,861	29,362	21,894	10.3	51.4	38.3
2105	56,485	5,801	29,026	21,658	10.3	51.4	38.3
2106	55,860	5,741	28,695	21,425	10.3	51.4	38.4
2107	55,243	5,681	28,368	21,194	10.3	51.4	38.4
2108	54,632	5,621	28,045	20,967	10.3	51.3	38.4
2109	54,029	5,561	27,727	20,741	10.3	51.3	38.4
2110	53,432	5,500	27,413	20,518	10.3	51.3	38.4
2111	52,843	5,440	27,105	20,297	10.3	51.3	38.4
2112	52,260	5,380	26,802	20,078	10.3	51.3	38.4
2113	51,685	5,320	26,504	19,861	10.3	51.3	38.4
2114	51,117	5,260	26,211	19,646	10.3	51.3	38.4
2115	50,555	5,200	25,924	19,432	10.3	51.3	38.4

Current population as of October 1 of each year.

Table 5-2 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: High-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2066	94,111	11,506	49,143	33,462	12.2	52.2	35.6
2067	93,311	11,417	48,795	33,099	12.2	52.3	35.5
2068	92,508	11,325	48,474	32,709	12.2	52.4	35.4
2069	91,707	11,231	48,167	32,308	12.2	52.5	35.2
2070	90,910	11,135	47,891	31,884	12.2	52.7	35.1
2071	90,121	11,039	47,611	31,472	12.2	52.8	34.9
2072	89,344	10,942	47,318	31,084	12.2	53.0	34.8
2073	88,580	10,846	47,011	30,723	12.2	53.1	34.7
2074	87,833	10,751	46,718	30,365	12.2	53.2	34.6
2075	87,104	10,659	46,428	30,018	12.2	53.3	34.5
2076	86,393	10,569	46,134	29,690	12.2	53.4	34.4
2077	85,702	10,482	45,860	29,359	12.2	53.5	34.3
2078	85,029	10,399	45,585	29,045	12.2	53.6	34.2
2079	84,375	10,320	45,338	28,717	12.2	53.7	34.0
2080	83,738	10,245	45,097	28,397	12.2	53.9	33.9
2081	83,117	10,173	44,787	28,157	12.2	53.9	33.9
2082	82,512	10,105	44,475	27,932	12.2	53.9	33.9
2083	81,919	10,040	44,161	27,719	12.3	53.9	33.8
2084	81,339	9,978	43,842	27,519	12.3	53.9	33.8
2085	80,769	9,918	43,516	27,335	12.3	53.9	33.8
2086	80,208	9,860	43,183	27,164	12.3	53.8	33.9
2087	79,655	9,804	42,848	27,003	12.3	53.8	33.9
2088	79,109	9,749	42,514	26,846	12.3	53.7	33.9
2089	78,568	9,694	42,183	26,692	12.3	53.7	34.0
2090	78,032	9,639	41,856	26,538	12.4	53.6	34.0
2091	77,500	9,583	41,533	26,383	12.4	53.6	34.0
2092	76,971	9,526	41,216	26,229	12.4	53.5	34.1
2093	76,445	9,467	40,905	26,073	12.4	53.5	34.1
2094	75,922	9,407	40,599	25,917	12.4	53.5	34.1
2095	75,403	9,345	40,299	25,758	12.4	53.4	34.2
2096	74,886	9,282	40,006	25,598	12.4	53.4	34.2
2097	74,372	9,216	39,720	25,436	12.4	53.4	34.2
2098	73,862	9,149	39,440	25,272	12.4	53.4	34.2
2099	73,355	9,080	39,168	25,107	12.4	53.4	34.2
2100	72,852	9,011	38,902	24,939	12.4	53.4	34.2
2101	72,352	8,940	38,641	24,771	12.4	53.4	34.2
2102	71,856	8,869	38,386	24,601	12.3	53.4	34.2
2103	71,364	8,798	38,135	24,431	12.3	53.4	34.2
2104	70,875	8,727	37,887	24,261	12.3	53.5	34.2
2105	70,390	8,657	37,643	24,090	12.3	53.5	34.2
2106	69,907	8,588	37,401	23,918	12.3	53.5	34.2
2107	69,428	8,520	37,161	23,747	12.3	53.5	34.2
2108	68,951	8,454	36,922	23,575	12.3	53.5	34.2
2109	68,476	8,389	36,683	23,404	12.3	53.6	34.2
2110	68,004	8,326	36,443	23,234	12.2	53.6	34.2
2111	67,533	8,266	36,201	23,066	12.2	53.6	34.2
2112	67,065	8,207	35,958	22,900	12.2	53.6	34.1
2113	66,598	8,150	35,712	22,737	12.2	53.6	34.1
2114	66,134	8,095	35,463	22,576	12.2	53.6	34.1
2115	65,671	8,041	35,213	22,417	12.2	53.6	34.1

Current population as of October 1 of each year.

Table 5-3 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Low-fertility (medium-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2066	81,019	6,741	40,816	33,462	8.3	50.4	41.3
2067	79,905	6,646	40,160	33,099	8.3	50.3	41.4
2068	78,791	6,559	39,523	32,709	8.3	50.2	41.5
2069	77,680	6,478	38,894	32,308	8.3	50.1	41.6
2070	76,575	6,402	38,289	31,884	8.4	50.0	41.6
2071	75,478	6,330	37,677	31,472	8.4	49.9	41.7
2072	74,394	6,260	37,049	31,084	8.4	49.8	41.8
2073	73,322	6,192	36,407	30,723	8.4	49.7	41.9
2074	72,266	6,123	35,778	30,365	8.5	49.5	42.0
2075	71,227	6,054	35,155	30,018	8.5	49.4	42.1
2076	70,204	5,983	34,530	29,690	8.5	49.2	42.3
2077	69,198	5,910	33,928	29,359	8.5	49.0	42.4
2078	68,208	5,834	33,329	29,045	8.6	48.9	42.6
2079	67,234	5,756	32,762	28,717	8.6	48.7	42.7
2080	66,275	5,674	32,204	28,397	8.6	48.6	42.8
2081	65,329	5,589	31,632	28,108	8.6	48.4	43.0
2082	64,396	5,502	31,101	27,793	8.5	48.3	43.2
2083	63,474	5,412	30,606	27,456	8.5	48.2	43.3
2084	62,563	5,320	30,148	27,094	8.5	48.2	43.3
2085	61,661	5,227	29,723	26,711	8.5	48.2	43.3
2086	60,768	5,134	29,324	26,311	8.4	48.3	43.3
2087	59,883	5,040	28,943	25,900	8.4	48.3	43.3
2088	59,005	4,946	28,574	25,485	8.4	48.4	43.2
2089	58,135	4,854	28,211	25,070	8.3	48.5	43.1
2090	57,272	4,764	27,848	24,660	8.3	48.6	43.1
2091	56,415	4,675	27,484	24,256	8.3	48.7	43.0
2092	55,566	4,589	27,116	23,861	8.3	48.8	42.9
2093	54,724	4,507	26,744	23,474	8.2	48.9	42.9
2094	53,889	4,428	26,367	23,095	8.2	48.9	42.9
2095	53,062	4,352	25,986	22,724	8.2	49.0	42.8
2096	52,244	4,280	25,603	22,361	8.2	49.0	42.8
2097	51,435	4,212	25,217	22,006	8.2	49.0	42.8
2098	50,635	4,147	24,830	21,658	8.2	49.0	42.8
2099	49,844	4,086	24,442	21,317	8.2	49.0	42.8
2100	49,064	4,028	24,054	20,982	8.2	49.0	42.8
2101	48,295	3,972	23,668	20,656	8.2	49.0	42.8
2102	47,537	3,919	23,282	20,336	8.2	49.0	42.8
2103	46,790	3,867	22,899	20,023	8.3	48.9	42.8
2104	46,054	3,817	22,519	19,718	8.3	48.9	42.8
2105	45,330	3,769	22,142	19,420	8.3	48.8	42.8
2106	44,618	3,720	21,770	19,128	8.3	48.8	42.9
2107	43,919	3,672	21,404	18,843	8.4	48.7	42.9
2108	43,231	3,624	21,044	18,563	8.4	48.7	42.9
2109	42,556	3,575	20,691	18,289	8.4	48.6	43.0
2110	41,893	3,526	20,347	18,020	8.4	48.6	43.0
2111	41,243	3,476	20,011	17,756	8.4	48.5	43.1
2112	40,605	3,425	19,685	17,495	8.4	48.5	43.1
2113	39,980	3,374	19,369	17,237	8.4	48.4	43.1
2114	39,368	3,322	19,064	16,982	8.4	48.4	43.1
2115	38,768	3,269	18,769	16,729	8.4	48.4	43.2

Current population as of October 1 of each year.

Table 5-4 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (high-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2066	85,433	8,870	44,664	31,899	10.4	52.3	37.3
2067	84,463	8,778	44,147	31,537	10.4	52.3	37.3
2068	83,494	8,690	43,652	31,153	10.4	52.3	37.3
2069	82,532	8,604	43,167	30,761	10.4	52.3	37.3
2070	81,578	8,520	42,709	30,349	10.4	52.4	37.2
2071	80,635	8,437	42,245	29,953	10.5	52.4	37.1
2072	79,706	8,355	41,767	29,584	10.5	52.4	37.1
2073	78,791	8,273	41,275	29,243	10.5	52.4	37.1
2074	77,893	8,191	40,797	28,905	10.5	52.4	37.1
2075	77,012	8,109	40,323	28,580	10.5	52.4	37.1
2076	76,148	8,026	39,848	28,274	10.5	52.3	37.1
2077	75,301	7,943	39,393	27,965	10.5	52.3	37.1
2078	74,470	7,858	38,940	27,671	10.6	52.3	37.2
2079	73,654	7,773	38,517	27,363	10.6	52.3	37.2
2080	72,852	7,687	38,103	27,062	10.6	52.3	37.1
2081	72,062	7,600	37,647	26,815	10.5	52.2	37.2
2082	71,285	7,513	37,212	26,560	10.5	52.2	37.3
2083	70,518	7,426	36,795	26,297	10.5	52.2	37.3
2084	69,760	7,338	36,395	26,027	10.5	52.2	37.3
2085	69,011	7,251	36,010	25,751	10.5	52.2	37.3
2086	68,269	7,164	35,635	25,470	10.5	52.2	37.3
2087	67,535	7,078	35,270	25,187	10.5	52.2	37.3
2088	66,806	6,992	34,910	24,904	10.5	52.3	37.3
2089	66,083	6,908	34,554	24,621	10.5	52.3	37.3
2090	65,366	6,826	34,200	24,341	10.4	52.3	37.2
2091	64,654	6,745	33,845	24,064	10.4	52.3	37.2
2092	63,947	6,666	33,489	23,792	10.4	52.4	37.2
2093	63,246	6,588	33,132	23,525	10.4	52.4	37.2
2094	62,551	6,513	32,775	23,263	10.4	52.4	37.2
2095	61,861	6,439	32,416	23,005	10.4	52.4	37.2
2096	61,177	6,368	32,059	22,751	10.4	52.4	37.2
2097	60,500	6,298	31,702	22,500	10.4	52.4	37.2
2098	59,830	6,230	31,347	22,252	10.4	52.4	37.2
2099	59,166	6,164	30,994	22,008	10.4	52.4	37.2
2100	58,510	6,099	30,643	21,767	10.4	52.4	37.2
2101	57,861	6,036	30,295	21,530	10.4	52.4	37.2
2102	57,219	5,973	29,950	21,296	10.4	52.3	37.2
2103	56,584	5,911	29,608	21,065	10.4	52.3	37.2
2104	55,957	5,850	29,269	20,837	10.5	52.3	37.2
2105	55,337	5,790	28,934	20,613	10.5	52.3	37.2
2106	54,724	5,730	28,603	20,391	10.5	52.3	37.3
2107	54,119	5,670	28,277	20,172	10.5	52.2	37.3
2108	53,520	5,610	27,954	19,956	10.5	52.2	37.3
2109	52,929	5,550	27,637	19,742	10.5	52.2	37.3
2110	52,344	5,490	27,324	19,530	10.5	52.2	37.3
2111	51,766	5,430	27,016	19,321	10.5	52.2	37.3
2112	51,196	5,369	26,713	19,113	10.5	52.2	37.3
2113	50,632	5,309	26,416	18,907	10.5	52.2	37.3
2114	50,075	5,249	26,124	18,702	10.5	52.2	37.3
2115	49,524	5,189	25,837	18,499	10.5	52.2	37.4

Current population as of October 1 of each year.

Table 5-5 Total population, population by the major three age groups (under 15, 15-64, and 65 and over), and age composition: Medium-fertility (low-mortality) projection

Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2066	88,775	8,889	44,861	35,025	10.0	50.5	39.5
2067	87,805	8,797	44,344	34,664	10.0	50.5	39.5
2068	86,829	8,709	43,849	34,271	10.0	50.5	39.5
2069	85,850	8,623	43,364	33,863	10.0	50.5	39.4
2070	84,873	8,539	42,906	33,428	10.1	50.6	39.4
2071	83,900	8,456	42,442	33,002	10.1	50.6	39.3
2072	82,936	8,374	41,964	32,598	10.1	50.6	39.3
2073	81,982	8,292	41,472	32,218	10.1	50.6	39.3
2074	81,042	8,210	40,993	31,839	10.1	50.6	39.3
2075	80,117	8,128	40,519	31,470	10.1	50.6	39.3
2076	79,209	8,046	40,043	31,120	10.2	50.6	39.3
2077	78,317	7,962	39,588	30,767	10.2	50.5	39.3
2078	77,443	7,878	39,134	30,431	10.2	50.5	39.3
2079	76,585	7,793	38,711	30,081	10.2	50.5	39.3
2080	75,744	7,707	38,296	29,741	10.2	50.6	39.3
2081	74,918	7,620	37,839	29,458	10.2	50.5	39.3
2082	74,105	7,533	37,403	29,170	10.2	50.5	39.4
2083	73,306	7,446	36,984	28,876	10.2	50.5	39.4
2084	72,519	7,358	36,584	28,577	10.1	50.4	39.4
2085	71,742	7,271	36,197	28,274	10.1	50.5	39.4
2086	70,975	7,184	35,822	27,969	10.1	50.5	39.4
2087	70,216	7,098	35,456	27,663	10.1	50.5	39.4
2088	69,465	7,013	35,096	27,357	10.1	50.5	39.4
2089	68,721	6,929	34,739	27,053	10.1	50.6	39.4
2090	67,984	6,846	34,384	26,753	10.1	50.6	39.4
2091	67,252	6,765	34,029	26,458	10.1	50.6	39.3
2092	66,525	6,686	33,673	26,167	10.1	50.6	39.3
2093	65,804	6,609	33,315	25,880	10.0	50.6	39.3
2094	65,088	6,533	32,956	25,598	10.0	50.6	39.3
2095	64,378	6,460	32,597	25,320	10.0	50.6	39.3
2096	63,673	6,388	32,239	25,046	10.0	50.6	39.3
2097	62,974	6,319	31,881	24,774	10.0	50.6	39.3
2098	62,281	6,251	31,525	24,505	10.0	50.6	39.3
2099	61,594	6,185	31,172	24,238	10.0	50.6	39.4
2100	60,915	6,120	30,820	23,975	10.0	50.6	39.4
2101	60,242	6,056	30,471	23,715	10.1	50.6	39.4
2102	59,576	5,994	30,125	23,457	10.1	50.6	39.4
2103	58,918	5,932	29,783	23,203	10.1	50.5	39.4
2104	58,267	5,871	29,443	22,953	10.1	50.5	39.4
2105	57,623	5,810	29,107	22,705	10.1	50.5	39.4
2106	56,986	5,750	28,775	22,461	10.1	50.5	39.4
2107	56,356	5,690	28,448	22,219	10.1	50.5	39.4
2108	55,734	5,630	28,124	21,980	10.1	50.5	39.4
2109	55,119	5,570	27,806	21,743	10.1	50.4	39.4
2110	54,511	5,510	27,492	21,508	10.1	50.4	39.5
2111	53,909	5,450	27,183	21,276	10.1	50.4	39.5
2112	53,315	5,390	26,880	21,046	10.1	50.4	39.5
2113	52,729	5,329	26,581	20,818	10.1	50.4	39.5
2114	52,149	5,269	26,288	20,592	10.1	50.4	39.5
2115	51,576	5,209	26,000	20,367	10.1	50.4	39.5

Current population as of October 1 of each year.

Table 5-6 Total population: Medium-, high-, and low-fertility (medium-, high-, and low-mortality) projections  
(Thousand people)

Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2066	87,110	94,111	81,019	85,433	92,425	79,349	88,775	95,784	82,677
2067	86,139	93,311	79,905	84,463	91,626	78,238	87,805	94,986	81,565
2068	85,165	92,508	78,791	83,494	90,828	77,129	86,829	94,180	80,448
2069	84,193	91,707	77,680	82,532	90,035	76,028	85,850	93,372	79,329
2070	83,227	90,910	76,575	81,578	89,250	74,935	84,873	92,565	78,213
2071	82,268	90,121	75,478	80,635	88,477	73,855	83,900	91,763	77,102
2072	81,321	89,344	74,394	79,706	87,717	72,789	82,936	90,969	76,000
2073	80,386	88,580	73,322	78,791	86,973	71,739	81,982	90,187	74,909
2074	79,467	87,833	72,266	77,893	86,246	70,704	81,042	89,420	73,832
2075	78,564	87,104	71,227	77,012	85,538	69,687	80,117	88,670	72,769
2076	77,678	86,393	70,204	76,148	84,849	68,687	79,209	87,937	71,723
2077	76,809	85,702	69,198	75,301	84,178	67,703	78,317	87,224	70,694
2078	75,957	85,029	68,208	74,470	83,526	66,735	77,443	86,530	69,681
2079	75,120	84,375	67,234	73,654	82,891	65,782	76,585	85,855	68,685
2080	74,299	83,738	66,275	72,852	82,272	64,843	75,744	85,199	67,705
2081	73,492	83,117	65,329	72,062	81,668	63,916	74,918	84,560	66,739
2082	72,698	82,512	64,396	71,285	81,077	63,001	74,105	83,937	65,787
2083	71,916	81,919	63,474	70,518	80,499	62,095	73,306	83,329	64,848
2084	71,144	81,339	62,563	69,760	79,932	61,200	72,519	82,735	63,920
2085	70,381	80,769	61,661	69,011	79,374	60,312	71,742	82,152	63,003
2086	69,627	80,208	60,768	68,269	78,824	59,433	70,975	81,579	62,095
2087	68,881	79,655	59,883	67,535	78,281	58,561	70,216	81,015	61,197
2088	68,142	79,109	59,005	66,806	77,743	57,696	69,465	80,459	60,306
2089	67,409	78,568	58,135	66,083	77,211	56,837	68,721	79,909	59,424
2090	66,681	78,032	57,272	65,366	76,683	55,986	67,984	79,364	58,548
2091	65,959	77,500	56,415	64,654	76,159	55,141	67,252	78,824	57,680
2092	65,243	76,971	55,566	63,947	75,638	54,304	66,525	78,287	56,819
2093	64,531	76,445	54,724	63,246	75,120	53,474	65,804	77,754	55,965
2094	63,826	75,922	53,889	62,551	74,605	52,651	65,088	77,223	55,119
2095	63,125	75,403	53,062	61,861	74,093	51,837	64,378	76,696	54,280
2096	62,431	74,886	52,244	61,177	73,584	51,032	63,673	76,171	53,449
2097	61,743	74,372	51,435	60,500	73,078	50,237	62,974	75,649	52,626
2098	61,061	73,862	50,635	59,830	72,576	49,451	62,281	75,131	51,812
2099	60,386	73,355	49,844	59,166	72,077	48,676	61,594	74,616	51,008
2100	59,718	72,852	49,064	58,510	71,582	47,911	60,915	74,104	50,213
2101	59,057	72,352	48,295	57,861	71,090	47,157	60,242	73,597	49,429
2102	58,403	71,856	47,537	57,219	70,602	46,415	59,576	73,093	48,655
2103	57,756	71,364	46,790	56,584	70,117	45,684	58,918	72,593	47,892
2104	57,117	70,875	46,054	55,957	69,635	44,965	58,267	72,097	47,141
2105	56,485	70,390	45,330	55,337	69,156	44,258	57,623	71,605	46,400
2106	55,860	69,907	44,618	54,724	68,679	43,563	56,986	71,116	45,672
2107	55,243	69,428	43,919	54,119	68,206	42,881	56,356	70,630	44,955
2108	54,632	68,951	43,231	53,520	67,734	42,211	55,734	70,147	44,250
2109	54,029	68,476	42,556	52,929	67,265	41,553	55,119	69,667	43,557
2110	53,432	68,004	41,893	52,344	66,798	40,908	54,511	69,189	42,877
2111	52,843	67,533	41,243	51,766	66,333	40,275	53,909	68,714	42,210
2112	52,260	67,065	40,605	51,196	65,869	39,655	53,315	68,240	41,555
2113	51,685	66,598	39,980	50,632	65,408	39,047	52,729	67,769	40,913
2114	51,117	66,134	39,368	50,075	64,949	38,451	52,149	67,299	40,283
2115	50,555	65,671	38,768	49,524	64,491	37,867	51,576	66,831	39,666

Current population as of October 1 of each year.

## G. Results of Conditional Projections

Conditional projections are quantitative simulations for analyzing the responses on the future populations to the changes of the assumptions in mechanical manners. The results of the counterfactual simulations of the future population corresponding to various scenarios with different fertility and non-Japanese net migration levels are exhibited.





Table 6-1 Total population: Total fertility rate(2065) 1.00, 1.20, 1.40, 1.60, 1.80, 2.00, 2.20 each projections

(Thousand people)

Year	Total fertility rate (2065)						
	1.00	1.20	1.40	1.60	1.80	2.00	2.20
2015	127,095	127,095	127,095	127,095	127,095	127,095	127,095
2016	126,780	126,806	126,832	126,858	126,884	126,910	126,936
2017	126,372	126,444	126,517	126,589	126,661	126,733	126,806
2018	125,875	126,011	126,147	126,284	126,422	126,559	126,697
2019	125,287	125,506	125,725	125,948	126,172	126,395	126,619
2020	124,614	124,935	125,255	125,584	125,914	126,245	126,577
2021	123,870	124,305	124,742	125,192	125,647	126,103	126,559
2022	123,066	123,627	124,189	124,773	125,364	125,956	126,548
2023	122,216	122,908	123,601	124,325	125,058	125,792	126,527
2024	121,332	122,157	122,982	123,847	124,725	125,603	126,482
2025	120,422	121,379	122,337	123,342	124,362	125,383	126,405
2026	119,492	120,579	121,667	122,811	123,970	125,131	126,293
2027	118,544	119,759	120,976	122,254	123,549	124,846	126,144
2028	117,581	118,922	120,264	121,672	123,099	124,528	125,958
2029	116,603	118,067	119,533	121,067	122,622	124,179	125,737
2030	115,611	117,195	118,781	120,439	122,118	123,799	125,482
2031	114,605	116,307	118,011	119,789	121,588	123,390	125,193
2032	113,585	115,403	117,222	119,116	121,033	122,952	124,872
2033	112,552	114,482	116,415	118,423	120,454	122,487	124,522
2034	111,505	113,547	115,590	117,710	119,853	121,998	124,145
2035	110,446	112,597	114,749	116,979	119,231	121,486	123,744
2036	109,374	111,632	113,893	116,231	118,592	120,956	123,323
2037	108,288	110,653	113,021	115,467	117,937	120,410	122,887
2038	107,189	109,661	112,137	114,691	117,269	119,852	122,439
2039	106,079	108,658	111,241	113,903	116,591	119,285	121,985
2040	104,959	107,644	110,335	113,106	115,906	118,713	121,528
2041	103,829	106,620	109,420	112,303	115,216	118,140	121,075
2042	102,691	105,589	108,499	111,494	114,525	117,570	120,630
2043	101,547	104,552	107,573	110,684	113,836	117,008	120,200
2044	100,397	103,509	106,644	109,875	113,153	116,459	119,791
2045	99,243	102,463	105,713	109,068	112,479	115,926	119,408
2046	98,084	101,414	104,783	108,267	111,817	115,414	119,057
2047	96,921	100,363	103,853	107,471	111,169	114,925	118,741
2048	95,754	99,308	102,925	106,683	110,535	114,462	118,462
2049	94,582	98,252	101,997	105,901	109,917	114,024	118,221
2050	93,406	97,192	101,071	105,127	109,314	113,611	118,017
2051	92,223	96,129	100,144	104,359	108,725	113,220	117,846
2052	91,035	95,061	99,217	103,595	108,146	112,849	117,703
2053	89,839	93,989	98,289	102,833	107,575	112,492	117,583
2054	88,636	92,910	97,357	102,072	107,010	112,145	117,479
2055	87,426	91,826	96,420	101,310	106,446	111,804	117,385
2056	86,207	90,734	95,478	100,544	105,881	111,464	117,294
2057	84,980	89,635	94,530	99,772	105,311	111,121	117,202
2058	83,745	88,528	93,574	98,994	104,735	110,772	117,104
2059	82,503	87,414	92,611	98,208	104,151	110,413	116,996
2060	81,253	86,292	91,640	97,413	103,557	110,044	116,875
2061	79,998	85,165	90,663	96,610	102,953	109,663	116,740
2062	78,739	84,032	89,679	95,800	102,339	109,270	116,592
2063	77,477	82,895	88,689	94,982	101,717	108,866	116,430
2064	76,214	81,756	87,697	94,159	101,087	108,453	116,258
2065	74,953	80,617	86,703	93,333	100,453	108,033	116,077
2115	26,486	36,005	47,702	62,026	79,362	100,119	124,756

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 6-2 Proportion of Old Age Population (65 and over): Total fertility rate(2065) 1.00, 1.20, 1.40, 1.60, 1.80, 2.00, 2.20 each projections

Year	Total fertility rate (2065)						
	1.00	1.20	1.40	1.60	1.80	2.00	2.20
2015	26.6	26.6	26.6	26.6	26.6	26.6	26.6
2016	27.3	27.3	27.3	27.3	27.3	27.3	27.2
2017	27.8	27.8	27.8	27.8	27.8	27.7	27.7
2018	28.3	28.3	28.2	28.2	28.2	28.1	28.1
2019	28.7	28.6	28.6	28.5	28.5	28.4	28.4
2020	29.0	29.0	28.9	28.8	28.7	28.7	28.6
2021	29.4	29.3	29.2	29.1	29.0	28.9	28.8
2022	29.6	29.5	29.4	29.2	29.1	29.0	28.8
2023	29.9	29.8	29.6	29.4	29.3	29.1	28.9
2024	30.3	30.0	29.8	29.6	29.4	29.2	29.0
2025	30.5	30.3	30.1	29.8	29.6	29.3	29.1
2026	30.8	30.5	30.3	30.0	29.7	29.4	29.1
2027	31.1	30.8	30.5	30.1	29.8	29.5	29.2
2028	31.4	31.0	30.7	30.3	30.0	29.6	29.3
2029	31.7	31.3	30.9	30.6	30.2	29.8	29.4
2030	32.1	31.7	31.3	30.9	30.4	30.0	29.6
2031	32.3	31.8	31.4	30.9	30.4	30.0	29.6
2032	32.7	32.2	31.7	31.2	30.7	30.3	29.8
2033	33.2	32.7	32.1	31.6	31.0	30.5	30.0
2034	33.7	33.1	32.5	31.9	31.4	30.8	30.3
2035	34.2	33.6	33.0	32.3	31.7	31.1	30.6
2036	34.8	34.1	33.4	32.8	32.1	31.5	30.9
2037	35.5	34.7	34.0	33.2	32.6	31.9	31.2
2038	36.1	35.3	34.5	33.8	33.0	32.3	31.6
2039	36.8	35.9	35.1	34.3	33.5	32.7	32.0
2040	37.4	36.4	35.5	34.7	33.8	33.0	32.3
2041	37.9	36.9	35.9	35.0	34.1	33.3	32.5
2042	38.3	37.3	36.3	35.3	34.4	33.5	32.6
2043	38.7	37.6	36.6	35.5	34.6	33.6	32.7
2044	39.1	38.0	36.8	35.8	34.7	33.7	32.8
2045	39.5	38.3	37.1	35.9	34.8	33.8	32.8
2046	39.8	38.5	37.3	36.1	34.9	33.8	32.8
2047	40.1	38.8	37.5	36.2	35.0	33.8	32.8
2048	40.5	39.0	37.6	36.3	35.1	33.9	32.7
2049	40.8	39.3	37.8	36.4	35.1	33.8	32.6
2050	41.1	39.5	38.0	36.5	35.1	33.8	32.5
2051	41.4	39.7	38.1	36.6	35.1	33.7	32.4
2052	41.7	39.9	38.2	36.6	35.1	33.6	32.2
2053	41.9	40.1	38.3	36.6	35.0	33.5	32.0
2054	42.2	40.2	38.4	36.6	34.9	33.3	31.8
2055	42.4	40.3	38.4	36.6	34.8	33.1	31.6
2056	42.6	40.5	38.4	36.5	34.7	32.9	31.3
2057	42.8	40.6	38.5	36.5	34.5	32.7	31.0
2058	43.0	40.7	38.5	36.4	34.4	32.5	30.8
2059	43.3	40.9	38.6	36.4	34.3	32.3	30.5
2060	43.6	41.0	38.6	36.3	34.2	32.2	30.3
2061	43.9	41.2	38.7	36.3	34.1	32.0	30.1
2062	44.2	41.4	38.8	36.3	34.0	31.8	29.8
2063	44.5	41.6	38.8	36.3	33.9	31.6	29.6
2064	44.8	41.7	38.9	36.2	33.8	31.5	29.4
2065	45.1	41.9	39.0	36.2	33.7	31.3	29.1
2115	50.3	44.5	39.4	35.0	31.2	27.9	25.0

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 6-3 Total population: Number of net migrants of non-Japanese origin(2035) 0, 50000, 100000, 250000, 500000, 750000, 1000000 each projections

(Thousand people)

Year	Number of net migrants of non-Japanese origin						
	0	50,000	100,000	250,000	500,000	750,000	1,000,000
2015	127,095	127,095	127,095	127,095	127,095	127,095	127,095
2016	126,768	126,818	126,868	127,018	127,268	127,519	127,769
2017	126,393	126,493	126,594	126,897	127,401	127,906	128,410
2018	125,965	126,118	126,271	126,729	127,492	128,256	129,019
2019	125,488	125,694	125,899	126,516	127,544	128,571	129,599
2020	124,965	125,225	125,484	126,263	127,561	128,859	130,157
2021	124,400	124,715	125,030	125,975	127,549	129,124	130,699
2022	123,795	124,167	124,539	125,654	127,513	129,371	131,230
2023	123,155	123,585	124,015	125,305	127,456	129,606	131,756
2024	122,482	122,972	123,462	124,932	127,382	129,833	132,283
2025	121,780	122,331	122,883	124,538	127,297	130,056	132,814
2026	121,051	121,666	122,281	124,126	127,202	130,277	133,353
2027	120,297	120,978	121,658	123,698	127,099	130,499	133,900
2028	119,520	120,267	121,014	123,254	126,988	130,722	134,456
2029	118,721	119,536	120,351	122,796	126,870	130,945	135,019
2030	117,900	118,784	119,669	122,322	126,744	131,166	135,588
2031	117,057	118,012	118,967	121,833	126,609	131,385	136,161
2032	116,193	117,220	118,247	121,328	126,464	131,599	136,734
2033	115,310	116,409	117,509	120,809	126,308	131,807	137,306
2034	114,407	115,580	116,754	120,274	126,141	132,007	137,874
2035	113,487	114,735	115,982	119,725	125,963	132,201	138,438
2036	112,551	113,873	115,195	119,161	125,772	132,384	138,997
2037	111,601	112,997	114,393	118,582	125,568	132,557	139,550
2038	110,638	112,107	113,577	117,990	125,351	132,721	140,098
2039	109,664	111,206	112,750	117,385	125,124	132,877	140,641
2040	108,680	110,295	111,912	116,770	124,886	133,025	141,183
2041	107,689	109,377	111,066	116,145	124,641	133,170	141,727
2042	106,692	108,452	110,214	115,514	124,390	133,313	142,275
2043	105,692	107,523	109,357	114,878	124,136	133,457	142,833
2044	104,690	106,591	108,497	114,239	123,882	133,607	143,405
2045	103,688	105,660	107,637	113,599	123,630	133,766	143,995
2046	102,687	104,729	106,777	112,960	123,383	133,937	144,608
2047	101,688	103,800	105,919	112,324	123,142	134,122	145,247
2048	100,692	102,873	105,063	111,690	122,909	134,323	145,914
2049	99,698	101,948	104,209	111,060	122,684	134,542	146,612
2050	98,707	101,026	103,358	110,433	122,467	134,778	147,342
2051	97,717	100,104	102,508	109,808	122,258	135,032	148,102
2052	96,727	99,183	101,658	109,185	122,057	135,303	148,894
2053	95,736	98,261	100,807	108,562	121,861	135,590	149,715
2054	94,742	97,336	99,953	107,939	121,670	135,891	150,564
2055	93,745	96,408	99,096	107,313	121,483	136,205	151,439
2056	92,742	95,474	98,234	106,683	121,297	136,530	152,338
2057	91,734	94,534	97,366	106,049	121,111	136,864	153,258
2058	90,718	93,587	96,491	105,409	120,925	137,205	154,196
2059	89,695	92,632	95,608	104,762	120,736	137,551	155,151
2060	88,664	91,670	94,718	104,108	120,544	137,901	156,119
2061	87,626	90,700	93,820	103,448	120,348	138,254	157,100
2062	86,581	89,724	92,916	102,781	120,149	138,608	158,090
2063	85,532	88,742	92,006	102,109	119,947	138,964	159,089
2064	84,479	87,757	91,093	101,433	119,741	139,320	160,095
2065	83,426	86,771	90,177	100,753	119,533	139,678	161,109
2115	43,748	48,595	53,787	71,540	109,042	157,532	218,162

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being prorated to each age and nationality population.)

Table 6-4 Proportion of Old Age Population (65 and over): Number of net migrants of non-Japanese origin(2035) 0, 50000, 100000, 250000, 500000, 750000, 1000000 each projections

(%)

Year	Number of net migrants of non-Japanese origin						
	0	50,000	100,000	250,000	500,000	750,000	1,000,000
2015	26.6	26.6	26.6	26.6	26.6	26.6	26.6
2016	27.3	27.3	27.3	27.2	27.2	27.1	27.1
2017	27.8	27.8	27.8	27.7	27.6	27.5	27.4
2018	28.3	28.2	28.2	28.1	27.9	27.7	27.6
2019	28.6	28.6	28.5	28.4	28.1	27.9	27.7
2020	29.0	28.9	28.8	28.7	28.4	28.1	27.8
2021	29.3	29.2	29.1	28.9	28.5	28.1	27.8
2022	29.5	29.4	29.3	29.0	28.6	28.2	27.7
2023	29.7	29.6	29.5	29.2	28.7	28.2	27.7
2024	30.0	29.8	29.7	29.4	28.8	28.2	27.7
2025	30.2	30.1	29.9	29.5	28.8	28.2	27.6
2026	30.4	30.3	30.1	29.6	28.9	28.2	27.5
2027	30.6	30.5	30.3	29.8	28.9	28.1	27.4
2028	30.9	30.7	30.5	29.9	29.0	28.1	27.3
2029	31.2	30.9	30.7	30.1	29.1	28.1	27.2
2030	31.5	31.3	31.0	30.3	29.2	28.2	27.2
2031	31.6	31.4	31.1	30.3	29.1	28.0	27.0
2032	32.0	31.7	31.4	30.6	29.3	28.1	27.0
2033	32.4	32.1	31.8	30.9	29.5	28.2	27.0
2034	32.9	32.5	32.2	31.2	29.7	28.3	27.0
2035	33.3	33.0	32.6	31.5	29.9	28.4	27.0
2036	33.9	33.5	33.0	31.9	30.1	28.5	27.1
2037	34.4	34.0	33.5	32.3	30.4	28.7	27.2
2038	35.0	34.6	34.1	32.7	30.7	28.9	27.3
2039	35.6	35.1	34.6	33.2	31.0	29.1	27.4
2040	36.1	35.6	35.0	33.5	31.2	29.2	27.4
2041	36.5	36.0	35.4	33.8	31.4	29.3	27.4
2042	36.9	36.3	35.7	34.0	31.4	29.2	27.3
2043	37.3	36.6	36.0	34.2	31.5	29.2	27.2
2044	37.6	36.9	36.2	34.3	31.5	29.1	27.0
2045	37.8	37.1	36.4	34.4	31.5	29.0	26.9
2046	38.1	37.3	36.6	34.5	31.5	28.9	26.6
2047	38.3	37.5	36.7	34.5	31.4	28.7	26.4
2048	38.5	37.7	36.9	34.6	31.3	28.6	26.2
2049	38.7	37.9	37.0	34.7	31.3	28.4	26.0
2050	38.9	38.0	37.1	34.7	31.2	28.3	25.8
2051	39.1	38.1	37.2	34.7	31.1	28.1	25.6
2052	39.2	38.3	37.3	34.7	31.0	27.9	25.3
2053	39.4	38.3	37.4	34.7	30.9	27.7	25.1
2054	39.4	38.4	37.4	34.6	30.7	27.5	24.8
2055	39.5	38.4	37.4	34.6	30.6	27.3	24.6
2056	39.5	38.4	37.4	34.5	30.5	27.2	24.4
2057	39.6	38.5	37.4	34.4	30.3	27.0	24.3
2058	39.6	38.5	37.4	34.4	30.3	26.9	24.1
2059	39.7	38.5	37.4	34.4	30.2	26.8	24.1
2060	39.7	38.6	37.5	34.4	30.2	26.8	24.1
2061	39.8	38.6	37.5	34.5	30.2	26.9	24.1
2062	39.8	38.7	37.5	34.5	30.3	27.0	24.2
2063	39.9	38.7	37.6	34.6	30.4	27.1	24.4
2064	39.9	38.8	37.7	34.6	30.5	27.2	24.5
2065	40.0	38.8	37.7	34.7	30.6	27.3	24.6
2115	39.8	38.8	37.8	35.2	31.4	28.2	25.6

Current population as of October 1 of each year. Indices for 2015 are based on the jump-off population from the 2015 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (Unknown age and nationality population is included after being



For the results of Population Projections for Japan: 2016 to 2065, visit  
<http://www.ipss.go.jp/index-e.asp> or contact Department of Population Dynamics Research,  
National Institute of Population and Social Security Research.

