National Institute of Population and Social Security Research

Population Projections for Japan (January 2012): 2011 to 2060

Appendix: Auxiliary Projections 2061 to 2110

National Institute of Population and Social Security Research in Japan
http://www.ipss.go.jp/index-e.asp

Population Projections for Japan (January 2012)

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 14th release of national population projections by the Institute, including the period before the integration between 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 as used by the Population Census of Japan. The period of projections begins with the 2010 Population Census and continues until 2060, projecting the population as of October 1 for each year. Note that we additionally extended the population calculations up to 2110 and added these as auxiliary projections.

The method of projection is as follows: we set assumptions on individual components of the 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 variant, a medium variant, and a 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 Medium-Mortality Assumption

1. Population Size and Growth

According to the 2010 Population Census, which serves as the base year of these projections, the total population of Japan in that year was 128.06 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 116.62 million by 2030, fall below 100 million to 99.13 million in 2048, and drop to 86.74 million by 2060 (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 by 2054 to 99.62 million, and to decrease further to 94.60 million in 2060 (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 in 2044 and to decline to 79.97 million by 2060 (see **Table 1-3** and **Figure 1-1**).

The range (difference between high and low variant) of the projected total population size by 2060 is thus equal to 14.63 million.

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 1.07 million in 2010. Consequently, the population of children under the age of 15 (young-age population) has also decreased from 27 million in the early 1980s to 16.84 million, as recorded in the 2010 Population Census.

According to the medium-fertility projection, the population size of this age group will fall to 15 million mark in 2015 (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 in 2046, eventually decreasing to around 7.91 million by 2060.

Looking at the different trends of 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 10.87 million in 2060 (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 below 10 million in 2030, and eventually decrease to as little as 5.62 million by 2060 (see **Table 1-3**).

Examining the declines of the young-age population in terms of percentage of the total population, according to the medium-fertility projection, the share is expected to continue to shrink from 13.1% as of 2010 to 11.0% in 2025, drop below 10% in 2044, and eventually decrease to 9.1% in 2060 (see **Table 1-1** and **Figure 1-4**).

The high-fertility projection shows a somewhat slower decline in the percentage of children, falling below the 13% mark in 2013 and reaching 11.5% by 2060 (see **Table 1-2**).

The decline in the children's share of the population is of course rapid in the low-fertility projection, breaking the 13% mark in 2012, falling below 10% in 2024, and ultimately dropping to 7.0% by 2060 (see **Table 1-3**).

(2) Trends in the Working-age Population (aged from 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 in the 1995 Population Census at 87.26 million. However, since then, it entered a period of decline and the population has fallen to 81.73 million according to the 2010 Population Census.

According to the results of the medium-fertility projection, the population of this age group is expected to continue to decrease below 80 million in 2013, below 70 million in 2027, and below 50 million in 2051, and eventually drop to 44.18 million by 2060 (see **Table 1-1** and **Figure 1-3**).

According to the projections based on the high- and low-fertility assumptions, the working-age population trends exhibit the same overall behavior as those based on the medium-fertility assumptions until 2025. After 2025, the depopulation of this age group is expected to be slower in the high-fertility projection, not dropping below 50 million until 2058 and reaching 49.09 million by 2060 (see **Table 1-2**). According to the low-fertility projection, the working-age population is expected to decrease more rapidly, falling below 50 million in 2047 and below 40 million in 2060 to 39.71 million (see **Table 1-3**).

Looking at the proportion of the population in the working age group, according to the medium-fertility projection, it is seen that the proportion will continue to fall from its 2010 share of 63.8%, declining to below 60.0% in 2017, reaching 53.9% (approximately ten percentage points lower than the current level) in 2040, and eventually declining to 50.9% by 2060 (see **Table 1-1** and **Figure 1-4**).

In the high-fertility projection as well, the population share of the working-age group shows a constant decline from the start of the projection period, reaching 51.9% in 2060, just 1 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 decline relatively slowly for a certain period of time, primarily due to a sharp decline in the number of children. Therefore, the timing of the percentage falling to 60.0% will be in 2018, one year later than in the projection based on medium-fertility assumptions. However, the subsequent decline will then accelerate, and the population share will reach 49.7% in 2060, 1.2 percentage points lower than the projection based on 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 on mortality is the same. That is, this age group will grow from 29.48 million as of 2010 to over 30 million in 2012 when the baby-boom generation (born between 1947 and 1949) enters this group, and to 36.12 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 37.01 million in 2033, and will peak in 2042, reaching the 38.78 million in 2042 when the second baby-boom cohorts enter this age group. The trend will shift to a steady decrease afterward, and the size of the age group will ultimately reach 34.64 million by 2060.

Looking at the proportion of elderly out of the entire population, the share will increase from the current level of 23.0% as of 2010 to 25.1 to 25.2% in 2013, meaning that more than one in four people in Japan will be elderly, according to all the projections based on the three-fertility assumptions. Later on, by 2035, 33.4% of the total population, corresponding to one in three people, will be elderly, and 50 years after the start of projection period, in 2060, the elderly will account for no less than 39.9%, i.e., one in 2.5 people, according to the medium-fertility projection (see **Table 1-1** and **Figure 1-2**).

The results of the high-fertility projections shows that the share will be 33.3%, i.e., one in three people, in 2037 and 36.6% in 2060, i.e., one in 2.7 people will be elderly (see **Table 1-2** and **Figure 1-2**).

In the low-fertility projections, the share will be 33.3%, i.e., one in three people, in 2033 and 43.3% in 2060, i.e., one in 2.3 people will be elderly (see **Table 1-3** and **Figure 1-2**).

A comparison of the results of the high- and low-fertility projections shows that the variation in the aging trend brought about by different assumptions of fertility rate amounts to a difference of 1.4 percentage points in 2030, from 32.3% in the low-fertility projection to 30.9% in the high-fertility projection. This difference grows wider thereafter, resulting in a difference of 6.7 percentage points 2060, where the low-fertility figure is 43.3% as opposed to the high-fertility figure at 36.6% (**Figure 1-2**).

As already noted, the growth rate of the elderly population itself will decelerate from around 2020, and the population will peak at 2042 and decrease thereafter. Nevertheless, the proportion of the elderly generation will continue to rise throughout the coming 50 years, according to both the medium- and low-fertility assumptions. This happens essentially because the child and working-age populations decrease faster throughout the period covered by the projections than the elderly age group.

3. Age Dependency Ratios

The (Total) age dependency ratio is an index that gives a rough indication of the level of support burden 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 36.1 (that is, 2.8 workers supporting one senior resident on average) as of 2010 to 50.2 (two workers supporting one senior resident) by 2022, and eventually reach 78.4 (only 1.3 workers supporting one senior resident) by 2060 (see **Table 1-4**). In contrast, the young-age dependency ratio (the percentage of the young-age population relative to the population of the working-age group) was at the level of 20.6 (that is, 4.9 workers supporting one child on average) as of 2010, and will remain in the range of 17 to 20 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 from around 2029, 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, the total age dependency ratio is expected to increase from 56.7 as of 2010 to 80.0 in 2037, and will eventually reach 96.3 by 2060, under the shrinking working-age population.

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 on the high-fertility projection decreases below that of the medium-fertility projection in 2044 and beyond, and is expected to reach 92.7 by 2060. In contrast, the age dependency ratio based on the low-fertility projection will initially maintain a lower level than the projections based on the medium-fertility projection, but the relationship will eventually reverse in 2043, and will reach 101.4 by 2060.

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 termination of the 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 sexagenary 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 cohorts from 1971 to 1974, and a steady decrease thereafter (see **Figure 1-5(1)**).

In the population pyramid as of 2010, the members of first baby-boomer generation are in their early 60s and those of the second baby-boomer generation are in their late 30s. Looking at the subsequent evolution of this pyramid shape according to the medium-fertility projection, the first baby-boomers will be in their early 80s and the second baby-boomers will be in their late 50s in 2030. It can therefore be concluded that the aging of the society toward 2030 is characterized by the entry of the first baby-boomer generation into the aged population (see **Figure 1-5(2)**).

The advancement of the aging society thereafter until 2060 will reflect the fact that the second baby boomer generation will enter the aged population as well as fact that the population size of the younger generations of all age brackets will decrease due to the low fertility (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 Projection with High-Mortality Assumption

The high-mortality projection assumes higher mortality rates compared to the medium-mortality projection, which means slower advance 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 maintain a larger level and the population will maintain a lower level than in the medium-mortality projection throughout the projection period. That is, compared to the total population estimate of 86.74 million in 2060 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 85.32 million. In contrast, the population and the demographics of the three major age groups based on the medium-fertility (high-mortality) projection are as follows: in 2060, the child population (and the proportion thereof) will be 7.90 million (9.3%), the working-age population (and the proportion thereof) will be 44.10 million (51.7%), and the elderly population (and the proportion thereof) will be 33.32 million (39.1%), all of which are lower than the results of the medium-fertility (medium-mortality) projection, and 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 Projection with Low-Mortality Assumption

The low-mortality projection assumes a lower mortality rate as compared with the medium-mortality projection, which means a faster advance 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 2060 based on the medium-fertility (medium-mortality) projection, 86.74 million, the total population in the same year based on the medium-fertility (low-mortality) projection will be 88.15 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: in 2060, the child population (and the proportion thereof) will be 7.92 million (9.0%), the working-age population (and the proportion thereof) will be 44.26 million (50.2%), and the elderly population (and the proportion thereof) will be 35.97 million (40.8%), all of which are higher than the results of the medium-fertility (medium-mortality) projection, and the size and proportion of the elderly population, in particular, are 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 assumption, respectively, 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 96.02 million in 2060. In contrast, in the low-fertility (high-mortality) projection, which results in the lowest total population, the total population may end up as low as 78.56 million in the same year (**Table 3-1**). Moreover, the proportion of the elderly population is 44.2% in 2060 according to the low-fertility (low-mortality) projection, which results in the highest proportion of the elderly population, while the same proportion is 35.8% 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 outline 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 for projecting future population of each age- and sex-specific group according to assumptions about three components of population change-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 the 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, 2010, taken from the 2010 Population Census of Japan, 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, 2010) in the 2010 Population Census by evenly distributing the population of "not reported" nationality and age included in the 2010 Population Census (results of basic complete tabulation on population and households) in order to project 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 of 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 forecasts the fertility rate for cohorts whose birth process is incomplete, for each year until the process is complete. The future age-specific fertility rates 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 each order of birth by way of models that use the lifetime probability of birth, age of childbearing, and so on. 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, however, the index at the completion of birth process was calculated based on indexes projected separately for the reference cohort. Note that the reference cohort refers to women born in 1995. 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.

Because the future development of fertility is uncertain, we decided to set the aforementioned three assumptions (medium, high, and low-variant projections) and project future population based on each assumption. This approach allows accounting 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 25.7 years of age for the cohort born in 1960 to 28.2 years of age for the cohort born in 1995. It levels off at nearly the same level until the cohort born in 2010 and remains unchanged thereafter.

(ii) The proportion of never married women increases from 9.4% for the cohort born in 1960 to 20.1% for the cohort born in 1995. It then levels off at nearly the same level until the cohort born in 2010 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 from 1935 to 1954 as a benchmark (1.0), the index indicating changes in the reproductive behavior of couples (fertility variation coefficient of married couples) declines to 0.920 children for the cohort born in 1995. It remains at nearly the same level until the cohort born in 2010 and remains unchanged thereafter. The completed number of births from married couples is obtained from this index and the change in first marriage behavior outlined in assumptions (i) and (ii) above, and drops from 2.07 for the cohorts born from 1958 to 1962 to 1.74 for the cohort born in 1995, 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 0.962 for the cohort born in 1960 to 0.938 for the cohort born in 1995. It remains unchanged thereafter.

As a result of the assumptions (i) to (iv) above, the total cohort fertility rate of Japanese women decreases from the actually observed figure of 1.808 for the cohort born in 1960 to 1.301 for the cohort born in 1995. 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 obtained the age-specific fertility rate of non-Japanese women on that basis. With this operation, it becomes possible to calculate the fertility rate with the same definition as the Vital Statistics when making the projections (i.e., the fertility rate including children of Japanese nationality born from women of non-Japanese nationality; see the formula below).

Definition of the total fertility rate of the Vital Statistics

$$\text{Total fertility rate} = \sum_{\substack{\text{Sum for ages} \\ (15\text{-}49)}} \frac{\substack{\text{Number of births by} \\ \text{Japanese women}} + \substack{\text{Number of births with} \\ \text{Japanese nationality born} \\ \text{from non-Japanese women*}}}{\text{Population of Japanese Women}}$$

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

Note that due to the impacts of the Great East Japan Earthquake that occurred in March 2011, the number of births from December 2011 is anticipated to fluctuate for a short period of time. We thus referred to the actual fluctuation in the number of births in 1995 when the Great Hanshin-Awaji Earthquake occurred, the number of recent Pregnancy Notifications and other relevant statistics to separately calculate the number of births in 2011 and 2012, which were set as assumption figures.

The results of the calculations above show that the total fertility rate of the same definition as the Vital Statistics, whose statistic value was 1.39 in 2010, will largely remain at 1.39 until 2014, except for a brief drop to 1.37 in 2012. It is then expected to gradually drop until it reaches 1.33 in 2024, whereupon it will increase slightly to 1.34 in 2030 and 1.35 in 2060 (see **Table 4-1** and **Figure 4-1**).

(2) High-fertility Assumption
(i) The mean age at first marriage of women by cohort will advance to 27.9 years of age for the cohort born in 1995, maintain almost the same level up to the cohort born in 2010, and remain unchanged thereafter.

(ii) The proportion of never married women increases to 14.7% for the cohort born in 1995, ultimately dropping to 14.3% for the cohort born in 2010 and remaining unchanged thereafter.

(iii) Using couples with wives in the cohorts born from 1935 to 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 1995. The completed number of births from married couples derived from this coefficient and changes in first marriage behavior explained above will reach 1.92 children for the cohort born in 2010, up from 1.91 for the cohort born in 1995, and it will remain unchanged thereafter.

(iv) The coefficient of divorce, bereavement, and remarriage will decrease from the actual figure of 0.962 for the cohort born in 1960 to 0.937 for the cohort born in 1995, remaining unchanged thereafter.

8

From the assumptions (i) to (iv) above, the total cohort fertility rate of Japanese women is projected to decrease from the actual figure of 1.808 for the cohort born in 1960 to 1.531 for the cohort born in 1995, eventually reaching 1.541 for the cohort born in 2010 and remaining unchanged thereafter.

We made similar operations for the impacts of the Great East Japan Earthquake as for the medium-fertility assumption, and the total fertility rate with the same definition as the Vital Statistics will under the above assumptions increase from the actual figure of 1.39 as of 2010 to 1.44 in 2011 and to 1.61 in 2020, eventually dropping to 1.60 in 2060 (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 28.5 years of age for the cohort born in 1995 and to 28.6 years of age for the cohort born in 2010, and remain unchanged thereafter.

(ii) The proportion of never married women increases to 26.2% for the cohort born in 1995, and eventually reaches 26.6% for the cohort born in 2010, remaining unchanged thereafter.

(iii) Using couples with wives in the cohorts born from 1935 to 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 0.842 for the cohort born in 1995, eventually reaching 0.845 for the cohort born in 2010 and remaining unchanged thereafter. The completed number of births from married couples derived from this coefficient and the changes in first marriage behavior above will decrease to 1.57 children for the cohort born in 1995, and remain unchanged until the cohort born in 2010 and thereafter.

(iv) The coefficient of divorce, bereavement, and remarriage will decrease from the actual figure of 0.962 for the cohort born in 1960 to 0.938 for the cohort born in 1995, 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 1.808 for the cohort born in 1960 to 1.087 for the cohort born in 1995, eventually reaching 1.079 for the cohort born in 2010 and remaining unchanged thereafter.

We made similar operations for the impacts of the Great East Japan Earthquake as for the medium-fertility assumption, and the total fertility rate with the same definition as the Vital Statistics will under the above assumptions decrease from the actual figure of 1.39 as of 2010 to 1.31 in 2011, eventually dropping to 1.08 in 2023, whereafter it will exhibit a slight increase to 1.12 in 2060 (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 2006 to 2010 (105.5) to remain constant for 2011 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, and we modified the model by adding new features so that the model adapts properly to the 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 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 after 1970 in order to reflect changes in the level of mortality that gradually slowed down over the past 40 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 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 in the past 15 years to make projections, and fixed the gradient for the future using the latest mean value (covering the past five years).

Because the improvement in Japanese mortality levels for recent years is showing trends beyond the assumptions of existing theory, we judged that the future mortality rate transitions and levels reached will be highly uncertain as in the previous Projections. Therefore, in the Projections, we decided to make multiple assumptions to obtain a likely fluctuation range to the projections. That is, we obtained the distribution of mortality index parameters for the standard mortality rate trend via the bootstrap method and similar, used the distribution to estimate the 99% confidence interval of the mortality indices, and 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 2060 to construct the future life tables. Note that we calculated the life table separately for 2011 to take the effects of the Great East Japan Earthquake into account, using the mortality rate in the Vital Statistics and data on the extent of damage from the National Police Agency and prefectural police departments of Iwate, Miyagi, and Fukushima in our calculations.

(1) Medium-mortality Assumption
According to the standard future life tables, life expectancy, which was 79.64 years for men and 86.39 years for women in 2010, is expected to grow to 80.93 years for men and 87.65 years for women in 2020, 81.95 years for men and 88.68 years for women in 2030, and 84.19 years for men and 90.93 years for women in 2060 (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 therefore be shorter, compared to the medium variant. As a result, life expectancy according to this assumption will be 81.25 years for men and 87.97 years for women in 2030 and 83.22 years for men and 89.96 years for women in 2060.

(3) Low-mortality Assumption
According to the low-mortality assumption, the mortality rate will be lower, and life expectancy will therefore be longer, compared to the medium variant. As a result, life expectancy according to this assumption will be 82.65 years for men and 89.39 years for women in 2030 and 85.14 years for men and 91.90 years for women in 2060.

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 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) in 2002 to 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 emigration of non-Japanese people into and out of Japan as well.

The actual figures show that the trends of international migration rates and numbers are different between Japanese and non-Japanese populations. Additionally, from a demographics point of view, the movement of the Japanese population is influenced by the age structure of the population, but for the non-Japanese population, the relation of their movement with the population size or age structure of Japan is limited. Therefore, in the Projections, we made assumptions on international migration separately for the Japanese and non-Japanese populations and 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 between 2004 and 2009 (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 for 2011 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 been increasing continuously, 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 show 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 2030. Note that the impact of the Great East Japan Earthquake on the excessive emigration is reflected in the assumptions until 2012. Note also 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 and onward, and the age-specific proportion was obtained by smoothing the average values from 1986 to 2010, 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 must be interlocked with the population scale of Japan. We therefore obtained the age- and sex-specific net international migration rate in 2030 in each projection (using the total population of Japanese and non-Japanese as the denominator) and assumed it to be constant thereafter.

IV   Auxiliary Projections

We made auxiliary projections for the period from 2061 to 2110, 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 2061 (**Table 5-1~5-6**).

V 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 [1.35]	High fertility variant [1.60]	Low fertility variant [1.12]	Medium fertility variant projection in December 2006 [1.26]
Mortality assumption [long-term life expectancy]		Medium mortality variant [Male: 84.19 years] [Female: 90.93 years]			Male: 83.67 years Female: 90.34 years
Total population	2010	128.06 million	128.06 million	128.06 million	127.18 million
		↓	↓	↓	↓
	2030	116.62 million	119.24 million	114.17 million	115.22 milion
		↓	↓	↓	↓
	2055	91.93 million	98.8 million	85.93 million	89.93 million
	2060	86.74 million	94.6 million	79.97 million	
Young-age (0 to 14) population	2010	16.84 million 13.1%	16.84 million 13.1%	16.84 million 13.1%	16.84 million 13.0%
		↓	↓	↓	↓
	2030	12.04 million 10.3%	14.32 million 12.0%	99.9 million 8.7%	11.15 million 9.7%
		↓	↓	↓	↓
	2055	8.61 million 9.4%	11.40 million 11.5%	6.38 million 7.4%	7.52 million 8.4%
	2060	7.91 million 9.1%	10.87 million 11.5%	5.62 million 7.0%	
Working-age (15 to 64) population	2010	81.73 million 63.8%	81.73 million 63.8%	81.73 million 63.8%	81.28 million 63.9%
		↓	↓	↓	↓
	2030	67.73 million 58.1%	68.07 million 57.1%	67.33 million 59.0%	67.40 million 58.5%
		↓	↓	↓	↓
	2055	47.06 million 51.2%	51.14 million 51.8%	43.30 million 50.4%	45.95 million 51.1%
	2060	44.18 million 50.9%	49.09 million 51.9%	39.71 million 49.7%	
Old-age (65 and over) population	2010	29.48 million 23.0%	29.48 million 23.0%	29.48 million 23.0%	29.41 million 23.1%
		↓	↓	↓	↓
	2030	36.85 million 31.6%	36.85 million 30.9%	36.85 million 32.3%	36.67 milloin 31.8%
		↓	↓	↓	↓
	2055	36.26 million 39.4%	36.26 million 36.7%	36.26 million 42.2%	36.46 million 40.5%
	2060	34.64 million 39.9%	34.64 million 36.6%	34.64 million 43.3%	

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 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 1995 (reference cohort) and assumed that the fertility will develop from the empirical values or estimated values of older cohorts to that of the cohort born in 2010, and will remain constant thereafter.

Type of assumption	Fertility assumption index	Assumption			Total fertility rate			Projection in December 2006
		Current statistic value, women born in 1960		Assumption, women born in 1995 (reference cohort)	Statistics in 2010	Progression	2060	2055
Medium-variant assumption	(1) Mean age at first marriage	25.7years old	→ Increase	28.2 years old	1.39	Maximum value 2013 1.39 ----------- Minimum value 2024 1.33	1.35	1.26
	(2) Proportion of never married	9.4%	→ Increase	20.1%				
	(3) Completed number of births from married couples	2.07children	→ Decrease	1.74 children				
	(4) Coefficient of divorce, bereavement, and remarriage	0.962	→ Decrease	0.938				
High-variant assumption	(1) Mean age at first marriage	Same as above	→ Increase	27.9 years old	1.39	Maximum value 2020 1.61 Minimum value 2010 1.39	1.60	1.55
	(2) Proportion of never married		→ Increase	14.7%				
	(3) Completed number of births from married couples		→ Decrease	1.91 children				
	(4) Coefficient of divorce, bereavement, and remarriage		→ Decrease	0.937				
Low-variant assumption	(1) Mean age at first marriage	Same as above	→ Increase	28.5 years old	1.39	Maximum value 2010 1.39 ----------- Minimum value 2023 1.09	1.12	1.06
	(2) Proportion of never married		→ Increase	26.2%				
	(3) Completed number of births from married couples		→ Decrease	1.57 children				
	(4) Coefficient of divorce, bereavement, and remarriage		→ Decrease	0.938				

Sex ratio at birth: The average value of the sex ratio at birth (105.5) from 2006 to 2010 is assumed to remain constant onward.

14

(2) Summary of Mortality Assumptions

We made the "medium-mortality" assumption (84.19 years for men and 90.93 years for women in 2060) based on the statistics of mortality from 1970 to 2010 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.

Life expectancy	Statistics	Medium fertility assumption	Projection in December 2006
	2010	2060	2055
Male	79.64 years ⟶	84.19 years	83.67 years
Female	86.39 years ⟶	90.93 years	90.34 years

(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 2004 to 2009 would remain constant onward. 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. Note that although exits exceeded entries for both men and women in 2011 when Japan was hit by Great East Japan Earthquake, entries are expected to exceed exits again from 2012, and the number of net migrants is expected to reach 34,000 men and 38,000 women in 2030. In subsequent years, the sex- and age-specific net international migration rate of non-Japanese 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 +
2010	128,057	16,839	81,735	29,484	13.1	63.8	23.0
2011	127,753	16,685	81,303	29,764	13.1	63.6	23.3
2012	127,498	16,493	80,173	30,831	12.9	62.9	24.2
2013	127,247	16,281	78,996	31,971	12.8	62.1	25.1
2014	126,949	16,067	77,803	33,080	12.7	61.3	26.1
2015	126,597	15,827	76,818	33,952	12.5	60.7	26.8
2016	126,193	15,574	75,979	34,640	12.3	60.2	27.5
2017	125,739	15,311	75,245	35,182	12.2	59.8	28.0
2018	125,236	15,056	74,584	35,596	12.0	59.6	28.4
2019	124,689	14,800	74,011	35,877	11.9	59.4	28.8
2020	124,100	14,568	73,408	36,124	11.7	59.2	29.1
2021	123,474	14,318	72,866	36,290	11.6	59.0	29.4
2022	122,813	14,049	72,408	36,356	11.4	59.0	29.6
2023	122,122	13,766	71,920	36,436	11.3	58.9	29.8
2024	121,403	13,505	71,369	36,529	11.1	58.8	30.1
2025	120,659	13,240	70,845	36,573	11.0	58.7	30.3
2026	119,891	12,959	70,349	36,584	10.8	58.7	30.5
2027	119,102	12,706	69,799	36,597	10.7	58.6	30.7
2028	118,293	12,466	69,187	36,640	10.5	58.5	31.0
2029	117,465	12,242	68,522	36,701	10.4	58.3	31.2
2030	116,618	12,039	67,730	36,849	10.3	58.1	31.6
2031	115,752	11,856	67,224	36,673	10.2	58.1	31.7
2032	114,870	11,692	66,330	36,848	10.2	57.7	32.1
2033	113,970	11,544	65,412	37,013	10.1	57.4	32.5
2034	113,054	11,410	64,441	37,203	10.1	57.0	32.9
2035	112,124	11,287	63,430	37,407	10.1	56.6	33.4
2036	111,179	11,171	62,357	37,651	10.0	56.1	33.9
2037	110,220	11,060	61,229	37,931	10.0	55.6	34.4
2038	109,250	10,951	60,059	38,239	10.0	55.0	35.0
2039	108,268	10,842	58,917	38,508	10.0	54.4	35.6
2040	107,276	10,732	57,866	38,678	10.0	53.9	36.1
2041	106,275	10,618	56,888	38,769	10.0	53.5	36.5
2042	105,267	10,500	55,985	38,782	10.0	53.2	36.8
2043	104,253	10,377	55,117	38,759	10.0	52.9	37.2
2044	103,233	10,249	54,308	38,676	9.9	52.6	37.5
2045	102,210	10,116	53,531	38,564	9.9	52.4	37.7
2046	101,185	9,978	52,810	38,398	9.9	52.2	37.9
2047	100,158	9,835	52,098	38,225	9.8	52.0	38.2
2048	99,131	9,689	51,385	38,057	9.8	51.8	38.4
2049	98,103	9,539	50,683	37,881	9.7	51.7	38.6
2050	97,076	9,387	50,013	37,676	9.7	51.5	38.8
2051	96,048	9,233	49,386	37,430	9.6	51.4	39.0
2052	95,021	9,077	48,773	37,171	9.6	51.3	39.1
2053	93,993	8,922	48,180	36,891	9.5	51.3	39.2
2054	92,964	8,767	47,613	36,585	9.4	51.2	39.4
2055	91,933	8,614	47,063	36,257	9.4	51.2	39.4
2056	90,901	8,464	46,520	35,916	9.3	51.2	39.5
2057	89,865	8,319	45,956	35,591	9.3	51.1	39.6
2058	88,826	8,178	45,391	35,257	9.2	51.1	39.7
2059	87,783	8,042	44,791	34,951	9.2	51.0	39.8
2060	86,737	7,912	44,183	34,642	9.1	50.9	39.9

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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 +
2010	128,057	16,839	81,735	29,484	13.1	63.8	23.0
2011	127,785	16,717	81,303	29,764	13.1	63.6	23.3
2012	127,582	16,578	80,173	30,831	13.0	62.8	24.2
2013	127,402	16,435	78,996	31,971	12.9	62.0	25.1
2014	127,191	16,309	77,803	33,080	12.8	61.2	26.0
2015	126,947	16,177	76,818	33,952	12.7	60.5	26.7
2016	126,669	16,050	75,979	34,640	12.7	60.0	27.3
2017	126,356	15,928	75,245	35,182	12.6	59.6	27.8
2018	126,006	15,827	74,584	35,596	12.6	59.2	28.2
2019	125,620	15,731	74,011	35,877	12.5	58.9	28.6
2020	125,196	15,664	73,408	36,124	12.5	58.6	28.9
2021	124,735	15,579	72,866	36,290	12.5	58.4	29.1
2022	124,239	15,474	72,408	36,356	12.5	58.3	29.3
2023	123,709	15,353	71,920	36,436	12.4	58.1	29.5
2024	123,149	15,251	71,369	36,529	12.4	58.0	29.7
2025	122,559	15,141	70,845	36,573	12.4	57.8	29.8
2026	121,943	14,979	70,380	36,584	12.3	57.7	30.0
2027	121,302	14,823	69,882	36,597	12.2	57.6	30.2
2028	120,638	14,659	69,338	36,640	12.2	57.5	30.4
2029	119,951	14,490	68,760	36,701	12.1	57.3	30.6
2030	119,243	14,320	68,073	36,849	12.0	57.1	30.9
2031	118,514	14,150	67,692	36,673	11.9	57.1	30.9
2032	117,767	13,982	66,938	36,848	11.9	56.8	31.3
2033	117,003	13,817	66,172	37,013	11.8	56.6	31.6
2034	116,222	13,658	65,361	37,203	11.8	56.2	32.0
2035	115,427	13,505	64,515	37,407	11.7	55.9	32.4
2036	114,620	13,360	63,609	37,651	11.7	55.5	32.8
2037	113,802	13,223	62,647	37,931	11.6	55.0	33.3
2038	112,974	13,093	61,642	38,239	11.6	54.6	33.8
2039	112,140	12,969	60,663	38,508	11.6	54.1	34.3
2040	111,300	12,851	59,770	38,678	11.5	53.7	34.8
2041	110,457	12,738	58,949	38,769	11.5	53.4	35.1
2042	109,611	12,630	58,199	38,782	11.5	53.1	35.4
2043	108,766	12,525	57,482	38,759	11.5	52.8	35.6
2044	107,921	12,424	56,820	38,676	11.5	52.7	35.8
2045	107,078	12,327	56,188	38,564	11.5	52.5	36.0
2046	106,239	12,232	55,610	38,398	11.5	52.3	36.1
2047	105,403	12,139	55,039	38,225	11.5	52.2	36.3
2048	104,570	12,048	54,465	38,057	11.5	52.1	36.4
2049	103,741	11,958	53,902	37,881	11.5	52.0	36.5
2050	102,915	11,868	53,371	37,676	11.5	51.9	36.6
2051	102,091	11,778	52,884	37,430	11.5	51.8	36.7
2052	101,269	11,686	52,412	37,171	11.5	51.8	36.7
2053	100,446	11,592	51,963	36,891	11.5	51.7	36.7
2054	99,623	11,496	51,542	36,585	11.5	51.7	36.7
2055	98,797	11,397	51,143	36,257	11.5	51.8	36.7
2056	97,967	11,295	50,756	35,916	11.5	51.8	36.7
2057	97,134	11,191	50,352	35,591	11.5	51.8	36.6
2058	96,295	11,084	49,953	35,257	11.5	51.9	36.6
2059	95,450	10,976	49,524	34,951	11.5	51.9	36.6
2060	94,600	10,865	49,093	34,642	11.5	51.9	36.6

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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 +
2010	128,057	16,839	81,735	29,484	13.1	63.8	23.0
2011	127,710	16,643	81,303	29,764	13.0	63.7	23.3
2012	127,388	16,384	80,173	30,831	12.9	62.9	24.2
2013	127,054	16,088	78,996	31,971	12.7	62.2	25.2
2014	126,655	15,773	77,803	33,080	12.5	61.4	26.1
2015	126,188	15,418	76,818	33,952	12.2	60.9	26.9
2016	125,657	15,037	75,979	34,640	12.0	60.5	27.6
2017	125,066	14,638	75,245	35,182	11.7	60.2	28.1
2018	124,421	14,241	74,584	35,596	11.4	59.9	28.6
2019	123,729	13,841	74,011	35,877	11.2	59.8	29.0
2020	122,996	13,464	73,408	36,124	10.9	59.7	29.4
2021	122,226	13,071	72,866	36,290	10.7	59.6	29.7
2022	121,423	12,659	72,408	36,356	10.4	59.6	29.9
2023	120,592	12,236	71,920	36,436	10.1	59.6	30.2
2024	119,735	11,837	71,369	36,529	9.9	59.6	30.5
2025	118,855	11,436	70,845	36,573	9.6	59.6	30.8
2026	117,954	11,062	70,308	36,584	9.4	59.6	31.0
2027	117,034	10,744	69,692	36,597	9.2	59.5	31.3
2028	116,095	10,457	68,998	36,640	9.0	59.4	31.6
2029	115,139	10,204	68,234	36,701	8.9	59.3	31.9
2030	114,166	9,988	67,328	36,849	8.7	59.0	32.3
2031	113,176	9,807	66,697	36,673	8.7	58.9	32.4
2032	112,169	9,654	65,668	36,848	8.6	58.5	32.8
2033	111,146	9,524	64,608	37,013	8.6	58.1	33.3
2034	110,106	9,411	63,492	37,203	8.5	57.7	33.8
2035	109,051	9,308	62,335	37,407	8.5	57.2	34.3
2036	107,980	9,213	61,117	37,651	8.5	56.6	34.9
2037	106,895	9,120	59,844	37,931	8.5	56.0	35.5
2038	105,796	9,026	58,531	38,239	8.5	55.3	36.1
2039	104,683	8,927	57,247	38,508	8.5	54.7	36.8
2040	103,557	8,823	56,056	38,678	8.5	54.1	37.3
2041	102,419	8,710	54,940	38,769	8.5	53.6	37.9
2042	101,271	8,589	53,900	38,782	8.5	53.2	38.3
2043	100,114	8,457	52,898	38,759	8.4	52.8	38.7
2044	98,949	8,316	51,956	38,676	8.4	52.5	39.1
2045	97,777	8,165	51,048	38,564	8.4	52.2	39.4
2046	96,600	8,006	50,197	38,398	8.3	52.0	39.7
2047	95,420	7,838	49,357	38,225	8.2	51.7	40.1
2048	94,237	7,664	48,516	38,057	8.1	51.5	40.4
2049	93,052	7,483	47,687	37,881	8.0	51.2	40.7
2050	91,866	7,299	46,891	37,676	7.9	51.0	41.0
2051	90,680	7,113	46,137	37,430	7.8	50.9	41.3
2052	89,493	6,926	45,397	37,171	7.7	50.7	41.5
2053	88,307	6,740	44,675	36,891	7.6	50.6	41.8
2054	87,120	6,558	43,977	36,585	7.5	50.5	42.0
2055	85,933	6,381	43,295	36,257	7.4	50.4	42.2
2056	84,744	6,210	42,618	35,916	7.3	50.3	42.4
2057	83,554	6,048	41,916	35,591	7.2	50.2	42.6
2058	82,362	5,894	41,211	35,257	7.2	50.0	42.8
2059	81,168	5,750	40,467	34,951	7.1	49.9	43.1
2060	79,972	5,617	39,713	34,642	7.0	49.7	43.3

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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
2010	45.0	56.7	20.6	36.1	45.0	56.7	20.6	36.1	45.0	56.7	20.6	36.1
2011	45.3	57.1	20.5	36.6	45.3	57.2	20.6	36.6	45.3	57.1	20.5	36.6
2012	45.6	59.0	20.6	38.5	45.6	59.1	20.7	38.5	45.6	58.9	20.4	38.5
2013	45.9	61.1	20.6	40.5	45.9	61.3	20.8	40.5	46.0	60.8	20.4	40.5
2014	46.2	63.2	20.7	42.5	46.1	63.5	21.0	42.5	46.3	62.8	20.3	42.5
2015	46.5	64.8	20.6	44.2	46.4	65.3	21.1	44.2	46.7	64.3	20.1	44.2
2016	46.8	66.1	20.5	45.6	46.6	66.7	21.1	45.6	47.0	65.4	19.8	45.6
2017	47.1	67.1	20.3	46.8	46.9	67.9	21.2	46.8	47.4	66.2	19.5	46.8
2018	47.4	67.9	20.2	47.7	47.1	68.9	21.2	47.7	47.7	66.8	19.1	47.7
2019	47.7	68.5	20.0	48.5	47.4	69.7	21.3	48.5	48.0	67.2	18.7	48.5
2020	48.0	69.1	19.8	49.2	47.6	70.5	21.3	49.2	48.4	67.6	18.3	49.2
2021	48.3	69.5	19.7	49.8	47.8	71.2	21.4	49.8	48.7	67.7	17.9	49.8
2022	48.5	69.6	19.4	50.2	48.0	71.6	21.4	50.2	49.0	67.7	17.5	50.2
2023	48.8	69.8	19.1	50.7	48.2	72.0	21.3	50.7	49.3	67.7	17.0	50.7
2024	49.1	70.1	18.9	51.2	48.4	72.6	21.4	51.2	49.7	67.8	16.6	51.2
2025	49.3	70.3	18.7	51.6	48.6	73.0	21.4	51.6	50.0	67.8	16.1	51.6
2026	49.5	70.4	18.4	52.0	48.8	73.3	21.3	52.0	50.2	67.8	15.7	52.0
2027	49.8	70.6	18.2	52.4	49.0	73.6	21.2	52.4	50.5	67.9	15.4	52.5
2028	50.0	71.0	18.0	53.0	49.2	74.0	21.1	52.8	50.8	68.3	15.2	53.1
2029	50.2	71.4	17.9	53.6	49.3	74.4	21.1	53.4	51.1	68.7	15.0	53.8
2030	50.4	72.2	17.8	54.4	49.5	75.2	21.0	54.1	51.3	69.6	14.8	54.7
2031	50.6	72.2	17.6	54.6	49.7	75.1	20.9	54.2	51.5	69.7	14.7	55.0
2032	50.8	73.2	17.6	55.6	49.8	75.9	20.9	55.0	51.8	70.8	14.7	56.1
2033	51.0	74.2	17.6	56.6	49.9	76.8	20.9	55.9	52.0	72.0	14.7	57.3
2034	51.2	75.4	17.7	57.7	50.1	77.8	20.9	56.9	52.2	73.4	14.8	58.6
2035	51.3	76.8	17.8	59.0	50.2	78.9	20.9	58.0	52.4	74.9	14.9	60.0
2036	51.5	78.3	17.9	60.4	50.3	80.2	21.0	59.2	52.7	76.7	15.1	61.6
2037	51.7	80.0	18.1	61.9	50.4	81.7	21.1	60.5	52.9	78.6	15.2	63.4
2038	51.8	81.9	18.2	63.7	50.5	83.3	21.2	62.0	53.1	80.8	15.4	65.3
2039	51.9	83.8	18.4	65.4	50.6	84.9	21.4	63.5	53.3	82.9	15.6	67.3
2040	52.1	85.4	18.5	66.8	50.7	86.2	21.5	64.7	53.4	84.7	15.7	69.0
2041	52.2	86.8	18.7	68.1	50.8	87.4	21.6	65.8	53.6	86.4	15.9	70.6
2042	52.4	88.0	18.8	69.3	50.9	88.3	21.7	66.6	53.8	87.9	15.9	72.0
2043	52.5	89.1	18.8	70.3	51.0	89.2	21.8	67.4	54.0	89.3	16.0	73.3
2044	52.6	90.1	18.9	71.2	51.0	89.9	21.9	68.1	54.2	90.4	16.0	74.4
2045	52.8	90.9	18.9	72.0	51.1	90.6	21.9	68.6	54.4	91.5	16.0	75.5
2046	52.9	91.6	18.9	72.7	51.2	91.0	22.0	69.0	54.6	92.4	15.9	76.5
2047	53.0	92.2	18.9	73.4	51.2	91.5	22.1	69.5	54.8	93.3	15.9	77.4
2048	53.1	92.9	18.9	74.1	51.3	92.0	22.1	69.9	55.0	94.2	15.8	78.4
2049	53.3	93.6	18.8	74.7	51.4	92.5	22.2	70.3	55.2	95.1	15.7	79.4
2050	53.4	94.1	18.8	75.3	51.4	92.8	22.2	70.6	55.4	95.9	15.6	80.3
2051	53.5	94.5	18.7	75.8	51.5	93.0	22.3	70.8	55.6	96.5	15.4	81.1
2052	53.7	94.8	18.6	76.2	51.5	93.2	22.3	70.9	55.8	97.1	15.3	81.9
2053	53.8	95.1	18.5	76.6	51.6	93.3	22.3	71.0	56.0	97.7	15.1	82.6
2054	53.9	95.3	18.4	76.8	51.7	93.3	22.3	71.0	56.2	98.1	14.9	83.2
2055	54.1	95.3	18.3	77.0	51.7	93.2	22.3	70.9	56.4	98.5	14.7	83.7
2056	54.2	95.4	18.2	77.2	51.8	93.0	22.3	70.8	56.6	98.8	14.6	84.3
2057	54.3	95.5	18.1	77.4	51.8	92.9	22.2	70.7	56.8	99.3	14.4	84.9
2058	54.4	95.7	18.0	77.7	51.9	92.8	22.2	70.6	56.9	99.9	14.3	85.6
2059	54.5	96.0	18.0	78.0	51.9	92.7	22.2	70.6	57.1	100.6	14.2	86.4
2060	54.6	96.3	17.9	78.4	52.0	92.7	22.1	70.6	57.3	101.4	14.1	87.2

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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

(Thousands)

Note: Previous projections are shown in broken lines.

(Fertility assumption)

High-variant
Medium-variant
Low-variant

Actual   Projected

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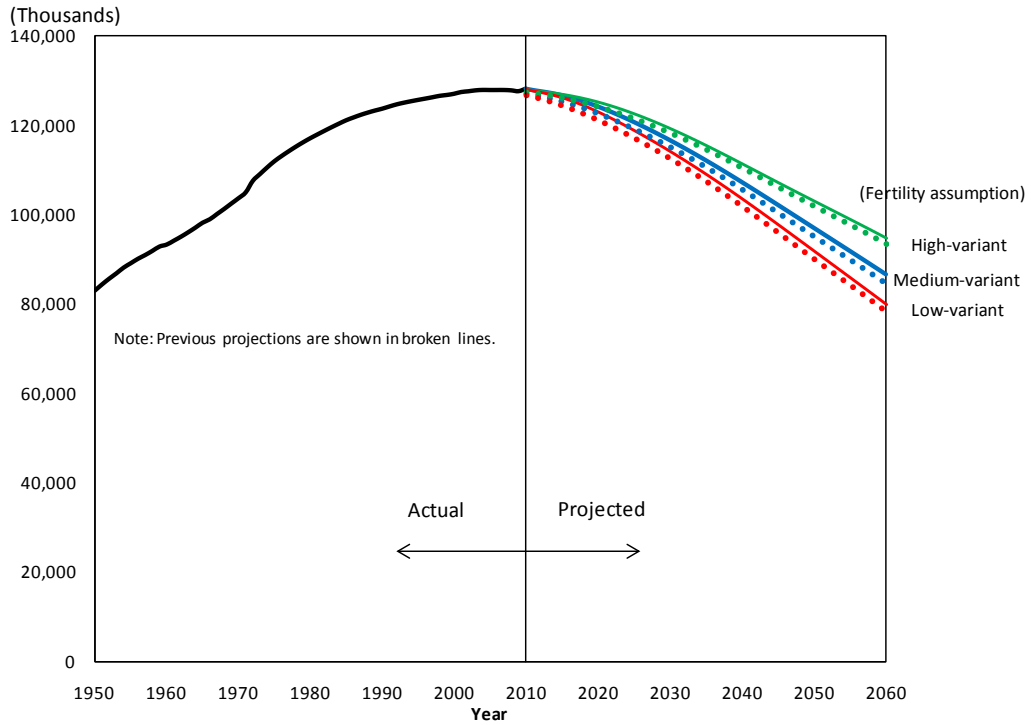
Figure 1-2 Trends in the proportion of elderly (aged 65 and over): Medium-, high-, and low-fertility (medium-mortality) projections

(%)

Note: Previous projections are shown in broken lines.

(Fertility assumption)

Low-variant
Medium-variant
High-variant

Actual   Projected

Year

20

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

(Thousands)

Note: Previous medium-variant projections are shown in broken lines.

Working-age population (15-64)

Actual ← → Projected

Old-age population (aged 65 and over)

Young-age population (aged under 15)

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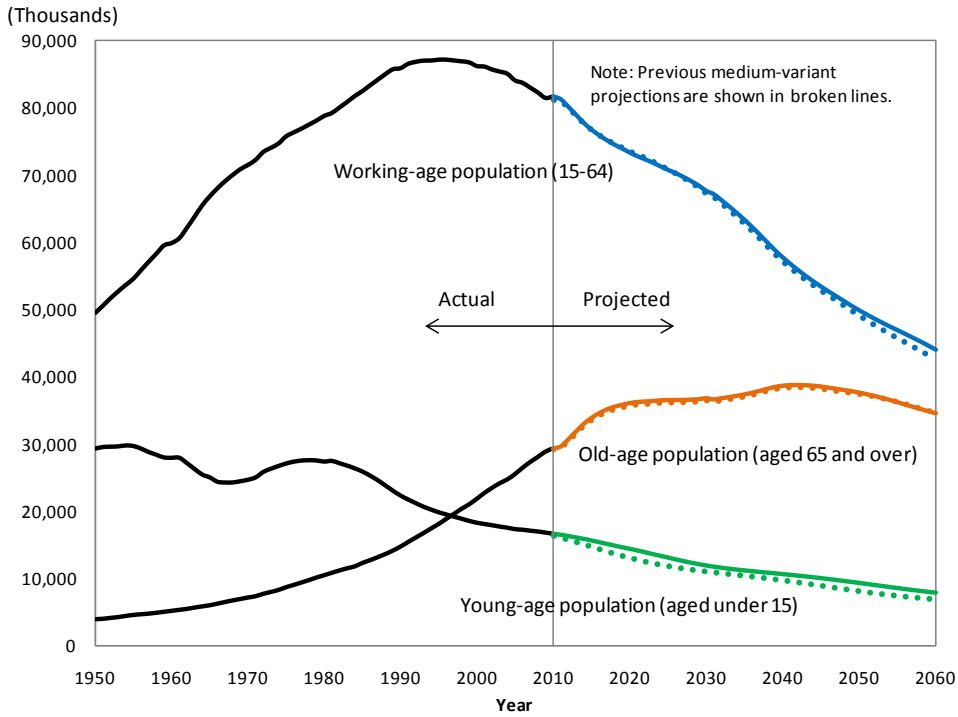
Figure 1-4 Trends in the proportion of major three age groups: Medium-fertility (medium-mortality) projections

（%）

Note: Previous medium-variant projections are shown in broken lines.

Working-age population (15-64)

Actual ← → Projected

Old-age population (aged 65 and over)

Young-age population (aged under 15)

Year
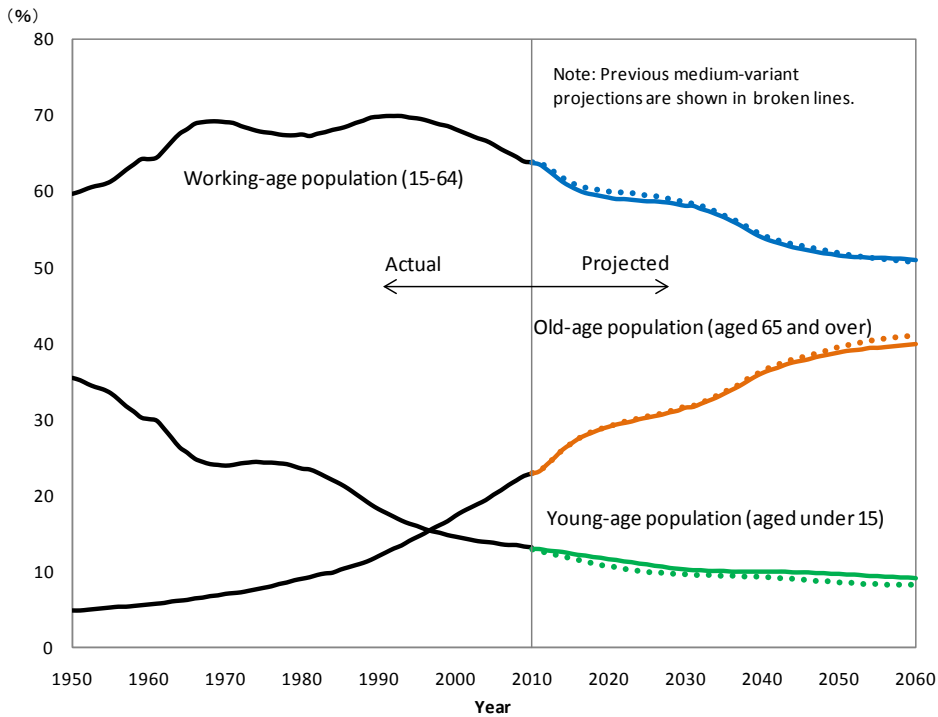
Figure 1-5 Population pyramid:

Three fertility variant projections (medium-mortality)

(1) 2010
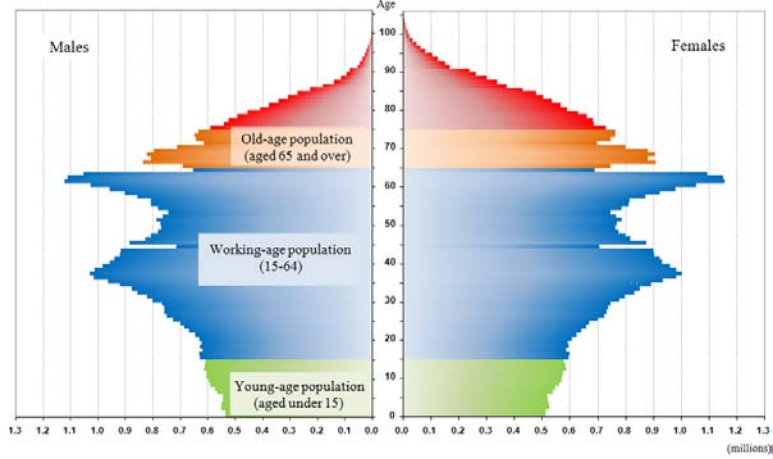
(2) 2030
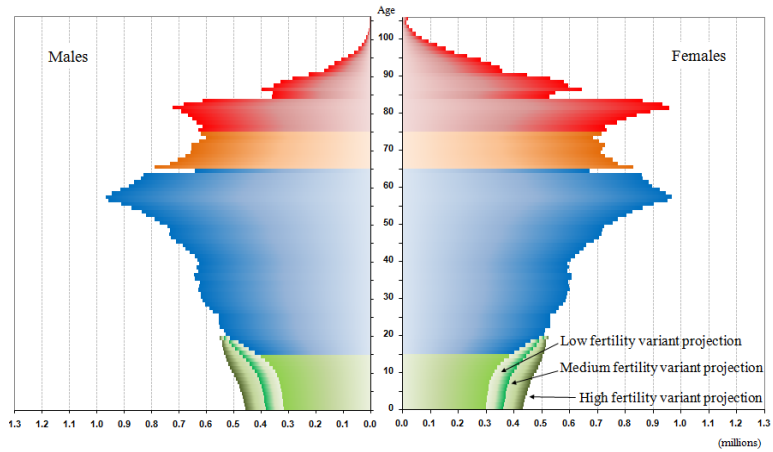
(3) 2060
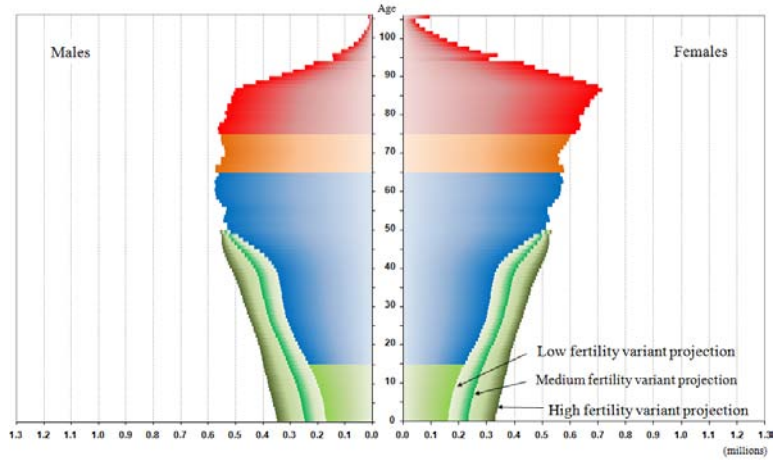
C. Results of Projections According to the Medium-Fertility Assumption with High- and Low-Mortality Assumptions

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

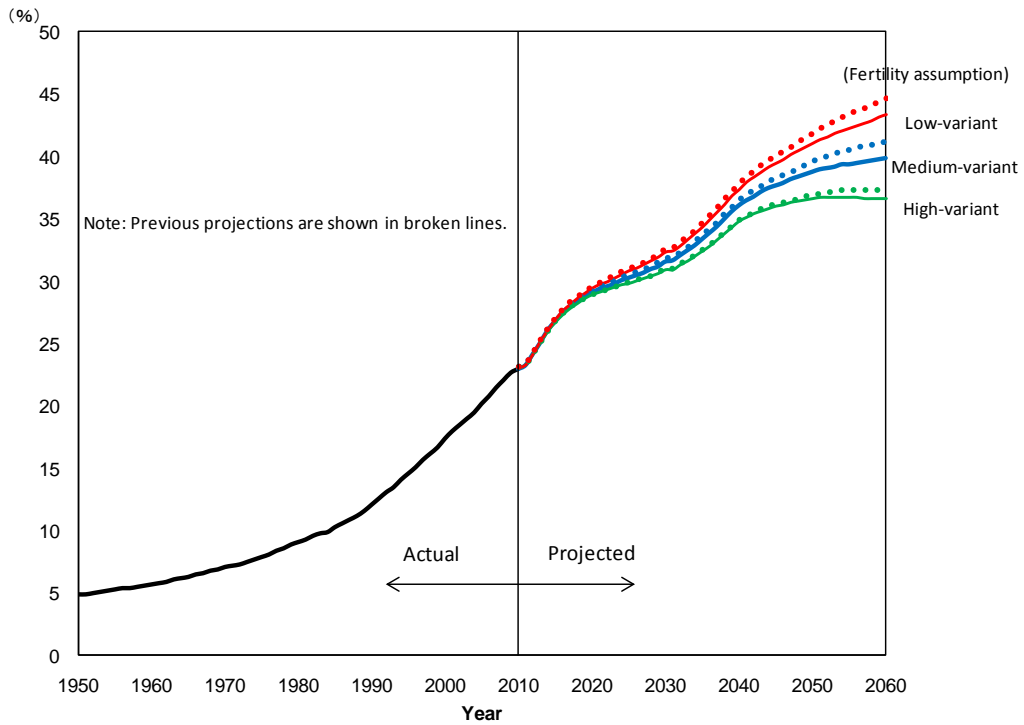| Year	Population (thousands)				Percentage		
	Total	0-14	15-64	65 +	0-14	15-64	65 +
2010	128,057	16,839	81,735	29,484	13.1	63.8	23.0
2011	127,690	16,684	81,295	29,711	13.1	63.7	23.3
2012	127,360	16,492	80,157	30,711	12.9	62.9	24.1
2013	127,040	16,279	78,972	31,788	12.8	62.2	25.0
2014	126,674	16,065	77,774	32,836	12.7	61.4	25.9
2015	126,259	15,825	76,784	33,650	12.5	60.8	26.7
2016	125,795	15,571	75,941	34,283	12.4	60.4	27.3
2017	125,283	15,308	75,202	34,773	12.2	60.0	27.8
2018	124,725	15,052	74,537	35,136	12.1	59.8	28.2
2019	124,126	14,796	73,960	35,369	11.9	59.6	28.5
2020	123,488	14,564	73,354	35,571	11.8	59.4	28.8
2021	122,816	14,314	72,808	35,694	11.7	59.3	29.1
2022	122,111	14,044	72,347	35,720	11.5	59.2	29.3
2023	121,378	13,761	71,855	35,762	11.3	59.2	29.5
2024	120,619	13,499	71,301	35,818	11.2	59.1	29.7
2025	119,837	13,235	70,775	35,828	11.0	59.1	29.9
2026	119,034	12,953	70,276	35,805	10.9	59.0	30.1
2027	118,211	12,701	69,723	35,787	10.7	59.0	30.3
2028	117,369	12,460	69,109	35,800	10.6	58.9	30.5
2029	116,509	12,236	68,441	35,832	10.5	58.7	30.8
2030	115,633	12,033	67,647	35,953	10.4	58.5	31.1
2031	114,740	11,850	67,139	35,751	10.3	58.5	31.2
2032	113,830	11,686	66,244	35,900	10.3	58.2	31.5
2033	112,905	11,538	65,325	36,041	10.2	57.9	31.9
2034	111,965	11,404	64,353	36,208	10.2	57.5	32.3
2035	111,011	11,281	63,341	36,389	10.2	57.1	32.8
2036	110,044	11,165	62,268	36,611	10.1	56.6	33.3
2037	109,065	11,054	61,141	36,871	10.1	56.1	33.8
2038	108,075	10,945	59,972	37,158	10.1	55.5	34.4
2039	107,075	10,836	58,831	37,408	10.1	54.9	34.9
2040	106,067	10,726	57,780	37,562	10.1	54.5	35.4
2041	105,052	10,612	56,803	37,637	10.1	54.1	35.8
2042	104,030	10,493	55,900	37,637	10.1	53.7	36.2
2043	103,003	10,370	55,032	37,601	10.1	53.4	36.5
2044	101,974	10,242	54,224	37,508	10.0	53.2	36.8
2045	100,941	10,109	53,447	37,386	10.0	52.9	37.0
2046	99,908	9,971	52,725	37,212	10.0	52.8	37.2
2047	98,873	9,828	52,014	37,031	9.9	52.6	37.5
2048	97,839	9,682	51,301	36,856	9.9	52.4	37.7
2049	96,804	9,532	50,598	36,674	9.8	52.3	37.9
2050	95,769	9,380	49,929	36,461	9.8	52.1	38.1
2051	94,734	9,225	49,301	36,208	9.7	52.0	38.2
2052	93,699	9,070	48,688	35,941	9.7	52.0	38.4
2053	92,662	8,914	48,095	35,653	9.6	51.9	38.5
2054	91,623	8,759	47,527	35,337	9.6	51.9	38.6
2055	90,582	8,606	46,977	34,998	9.5	51.9	38.6
2056	89,537	8,457	46,434	34,646	9.4	51.9	38.7
2057	88,489	8,311	45,869	34,309	9.4	51.8	38.8
2058	87,437	8,170	45,304	33,963	9.3	51.8	38.8
2059	86,381	8,034	44,704	33,643	9.3	51.8	38.9
2060	85,321	7,904	44,096	33,321	9.3	51.7	39.1

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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 +
2010	128,057	16,839	81,735	29,484	13.1	63.8	23.0
2011	127,808	16,685	81,310	29,813	13.1	63.6	23.3
2012	127,624	16,494	80,188	30,943	12.9	62.8	24.2
2013	127,441	16,282	79,017	32,143	12.8	62.0	25.2
2014	127,207	16,068	77,829	33,310	12.6	61.2	26.2
2015	126,917	15,829	76,850	34,239	12.5	60.6	27.0
2016	126,573	15,576	76,015	34,981	12.3	60.1	27.6
2017	126,175	15,314	75,285	35,575	12.1	59.7	28.2
2018	125,726	15,059	74,628	36,038	12.0	59.4	28.7
2019	125,230	14,804	74,059	36,367	11.8	59.1	29.0
2020	124,690	14,572	73,459	36,659	11.7	58.9	29.4
2021	124,111	14,323	72,920	36,868	11.5	58.8	29.7
2022	123,495	14,054	72,465	36,976	11.4	58.7	29.9
2023	122,846	13,771	71,980	37,095	11.2	58.6	30.2
2024	122,168	13,510	71,432	37,226	11.1	58.5	30.5
2025	121,462	13,246	70,911	37,305	10.9	58.4	30.7
2026	120,731	12,964	70,417	37,350	10.7	58.3	30.9
2027	119,977	12,712	69,870	37,395	10.6	58.2	31.2
2028	119,201	12,471	69,261	37,469	10.5	58.1	31.4
2029	118,404	12,247	68,597	37,560	10.3	57.9	31.7
2030	117,588	12,044	67,807	37,737	10.2	57.7	32.1
2031	116,751	11,861	67,304	37,586	10.2	57.6	32.2
2032	115,896	11,697	66,411	37,788	10.1	57.3	32.6
2033	115,023	11,549	65,494	37,979	10.0	56.9	33.0
2034	114,133	11,415	64,523	38,194	10.0	56.5	33.5
2035	113,226	11,292	63,513	38,421	10.0	56.1	33.9
2036	112,304	11,176	62,440	38,688	10.0	55.6	34.4
2037	111,367	11,065	61,312	38,990	9.9	55.1	35.0
2038	110,417	10,957	60,141	39,319	9.9	54.5	35.6
2039	109,454	10,848	58,998	39,607	9.9	53.9	36.2
2040	108,479	10,737	57,946	39,796	9.9	53.4	36.7
2041	107,495	10,624	56,968	39,904	9.9	53.0	37.1
2042	106,501	10,505	56,064	39,932	9.9	52.6	37.5
2043	105,500	10,382	55,196	39,921	9.8	52.3	37.8
2044	104,492	10,254	54,387	39,851	9.8	52.0	38.1
2045	103,480	10,122	53,610	39,749	9.8	51.8	38.4
2046	102,464	9,984	52,888	39,592	9.7	51.6	38.6
2047	101,446	9,842	52,177	39,427	9.7	51.4	38.9
2048	100,426	9,695	51,463	39,267	9.7	51.2	39.1
2049	99,405	9,546	50,761	39,099	9.6	51.1	39.3
2050	98,385	9,394	50,091	38,900	9.5	50.9	39.5
2051	97,365	9,239	49,464	38,661	9.5	50.8	39.7
2052	96,345	9,084	48,851	38,410	9.4	50.7	39.9
2053	95,325	8,928	48,259	38,138	9.4	50.6	40.0
2054	94,305	8,774	47,691	37,840	9.3	50.6	40.1
2055	93,285	8,621	47,142	37,522	9.2	50.5	40.2
2056	92,263	8,471	46,600	37,192	9.2	50.5	40.3
2057	91,239	8,326	46,035	36,879	9.1	50.5	40.4
2058	90,213	8,184	45,471	36,557	9.1	50.4	40.5
2059	89,183	8,049	44,871	36,264	9.0	50.3	40.7
2060	88,150	7,919	44,263	35,968	9.0	50.2	40.8

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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
2010	45.0	56.7	20.6	36.1	45.0	56.7	20.6	36.1	45.0	56.7	20.6	36.1
2011	45.3	57.1	20.5	36.6	45.3	57.1	20.5	36.5	45.3	57.2	20.5	36.7
2012	45.6	59.0	20.6	38.5	45.6	58.9	20.6	38.3	45.6	59.2	20.6	38.6
2013	45.9	61.1	20.6	40.5	45.9	60.9	20.6	40.3	46.0	61.3	20.6	40.7
2014	46.2	63.2	20.7	42.5	46.1	62.9	20.7	42.2	46.3	63.4	20.6	42.8
2015	46.5	64.8	20.6	44.2	46.4	64.4	20.6	43.8	46.6	65.2	20.6	44.6
2016	46.8	66.1	20.5	45.6	46.7	65.6	20.5	45.1	46.9	66.5	20.5	46.0
2017	47.1	67.1	20.3	46.8	47.0	66.6	20.4	46.2	47.2	67.6	20.3	47.3
2018	47.4	67.9	20.2	47.7	47.3	67.3	20.2	47.1	47.5	68.5	20.2	48.3
2019	47.7	68.5	20.0	48.5	47.5	67.8	20.0	47.8	47.8	69.1	20.0	49.1
2020	48.0	69.1	19.8	49.2	47.8	68.3	19.9	48.5	48.1	69.7	19.8	49.9
2021	48.3	69.5	19.7	49.8	48.1	68.7	19.7	49.0	48.4	70.2	19.6	50.6
2022	48.5	69.6	19.4	50.2	48.3	68.8	19.4	49.4	48.7	70.4	19.4	51.0
2023	48.8	69.8	19.1	50.7	48.6	68.9	19.2	49.8	49.0	70.7	19.1	51.5
2024	49.1	70.1	18.9	51.2	48.8	69.2	18.9	50.2	49.3	71.0	18.9	52.1
2025	49.3	70.3	18.7	51.6	49.1	69.3	18.7	50.6	49.5	71.3	18.7	52.6
2026	49.5	70.4	18.4	52.0	49.3	69.4	18.4	50.9	49.8	71.5	18.4	53.0
2027	49.8	70.6	18.2	52.4	49.5	69.5	18.2	51.3	50.0	71.7	18.2	53.5
2028	50.0	71.0	18.0	53.0	49.7	69.8	18.0	51.8	50.3	72.1	18.0	54.1
2029	50.2	71.4	17.9	53.6	49.9	70.2	17.9	52.4	50.5	72.6	17.9	54.8
2030	50.4	72.2	17.8	54.4	50.1	70.9	17.8	53.1	50.7	73.4	17.8	55.7
2031	50.6	72.2	17.6	54.6	50.3	70.9	17.7	53.2	50.9	73.5	17.6	55.8
2032	50.8	73.2	17.6	55.6	50.5	71.8	17.6	54.2	51.1	74.5	17.6	56.9
2033	51.0	74.2	17.6	56.6	50.7	72.8	17.7	55.2	51.3	75.6	17.6	58.0
2034	51.2	75.4	17.7	57.7	50.8	74.0	17.7	56.3	51.5	76.9	17.7	59.2
2035	51.3	76.8	17.8	59.0	51.0	75.3	17.8	57.4	51.7	78.3	17.8	60.5
2036	51.5	78.3	17.9	60.4	51.2	76.7	17.9	58.8	51.8	79.9	17.9	62.0
2037	51.7	80.0	18.1	61.9	51.3	78.4	18.1	60.3	52.0	81.6	18.0	63.6
2038	51.8	81.9	18.2	63.7	51.4	80.2	18.3	62.0	52.2	83.6	18.2	65.4
2039	51.9	83.8	18.4	65.4	51.6	82.0	18.4	63.6	52.3	85.5	18.4	67.1
2040	52.1	85.4	18.5	66.8	51.7	83.6	18.6	65.0	52.5	87.2	18.5	68.7
2041	52.2	86.8	18.7	68.1	51.8	84.9	18.7	66.3	52.6	88.7	18.6	70.0
2042	52.4	88.0	18.8	69.3	52.0	86.1	18.8	67.3	52.8	90.0	18.7	71.2
2043	52.5	89.1	18.8	70.3	52.1	87.2	18.8	68.3	52.9	91.1	18.8	72.3
2044	52.6	90.1	18.9	71.2	52.2	88.1	18.9	69.2	53.0	92.1	18.9	73.3
2045	52.8	90.9	18.9	72.0	52.3	88.9	18.9	70.0	53.2	93.0	18.9	74.1
2046	52.9	91.6	18.9	72.7	52.5	89.5	18.9	70.6	53.3	93.7	18.9	74.9
2047	53.0	92.2	18.9	73.4	52.6	90.1	18.9	71.2	53.4	94.4	18.9	75.6
2048	53.1	92.9	18.9	74.1	52.7	90.7	18.9	71.8	53.6	95.1	18.8	76.3
2049	53.3	93.6	18.8	74.7	52.8	91.3	18.8	72.5	53.7	95.8	18.8	77.0
2050	53.4	94.1	18.8	75.3	53.0	91.8	18.8	73.0	53.9	96.4	18.8	77.7
2051	53.5	94.5	18.7	75.8	53.1	92.2	18.7	73.4	54.0	96.8	18.7	78.2
2052	53.7	94.8	18.6	76.2	53.2	92.4	18.6	73.8	54.1	97.2	18.6	78.6
2053	53.8	95.1	18.5	76.6	53.4	92.7	18.5	74.1	54.3	97.5	18.5	79.0
2054	53.9	95.3	18.4	76.8	53.5	92.8	18.4	74.4	54.4	97.7	18.4	79.3
2055	54.1	95.3	18.3	77.0	53.6	92.8	18.3	74.5	54.6	97.9	18.3	79.6
2056	54.2	95.4	18.2	77.2	53.7	92.8	18.2	74.6	54.7	98.0	18.2	79.8
2057	54.3	95.5	18.1	77.4	53.8	92.9	18.1	74.8	54.8	98.2	18.1	80.1
2058	54.4	95.7	18.0	77.7	53.9	93.0	18.0	75.0	54.9	98.4	18.0	80.4
2059	54.5	96.0	18.0	78.0	54.0	93.2	18.0	75.3	55.1	98.8	17.9	80.8
2060	54.6	96.3	17.9	78.4	54.1	93.5	17.9	75.6	55.2	99.2	17.9	81.3

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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

(Thousands)

(Mortality assumption)

Low-variant
Medium-variant
High-variant

Actual   Projected

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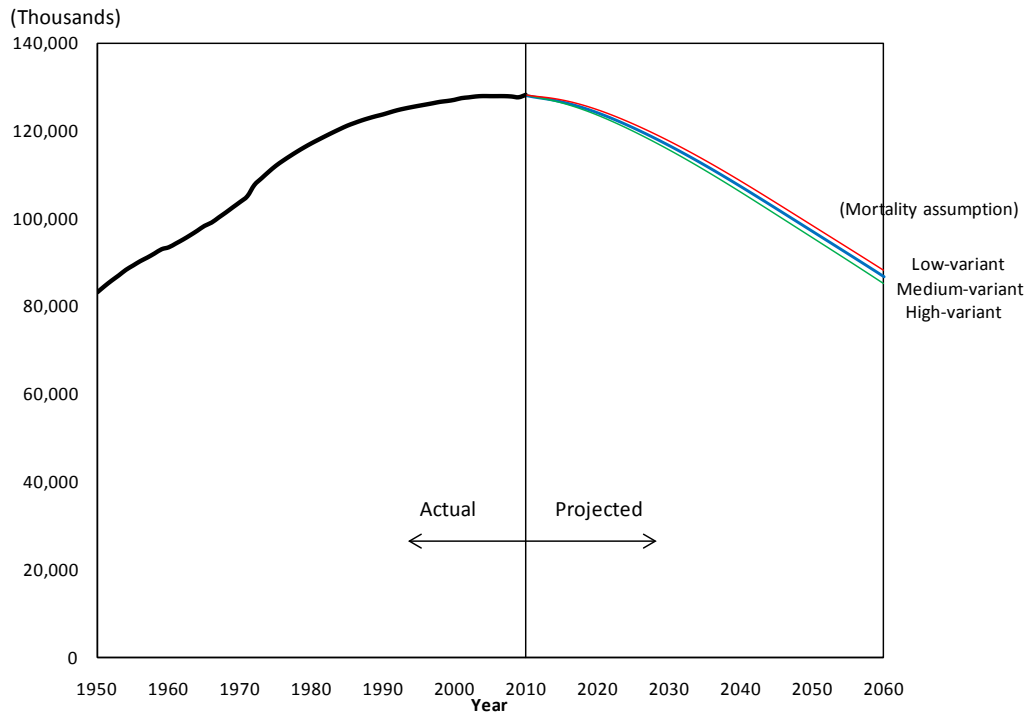
Figure 2-2 Trends in the proportion of elderly (aged 65 and over): Medium-fertility (medium-, high-, and low-mortality) projections

（%）

(Mortality assumption)

Low-variant
Medium-variant
High-variant

Actual   Projected

Year

D. Comparison of Projection Variants

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

(Thousand people)

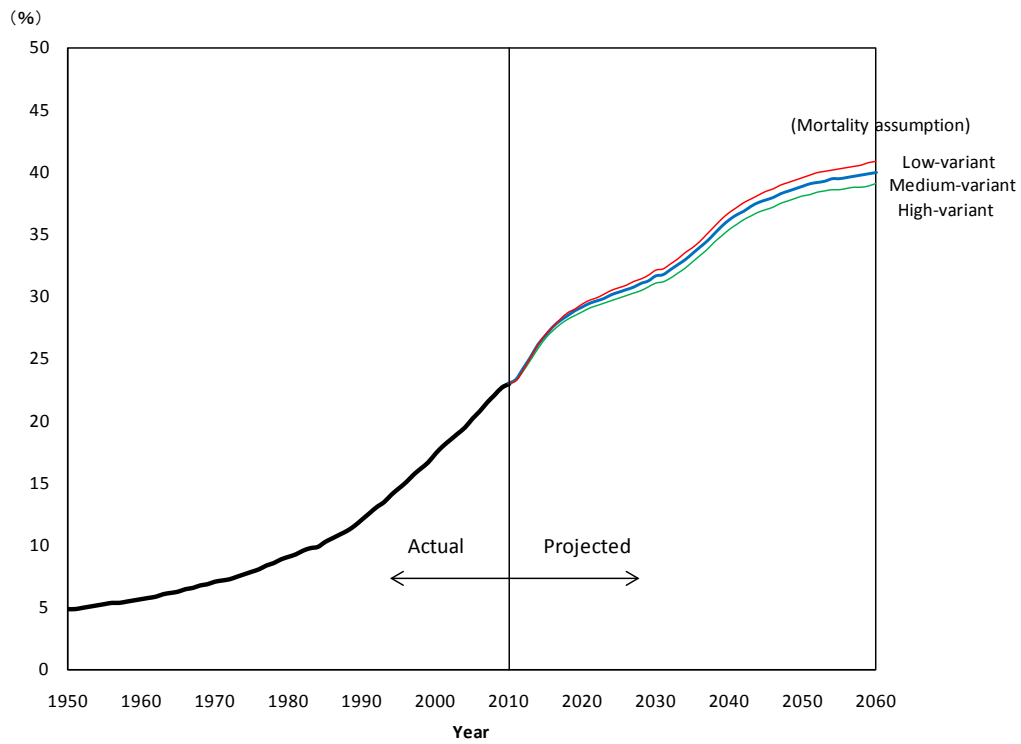| Year	Medium mortality assumption			High mortality assumption			Low mortality assumption		
	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility	Medium fertility	High fertility	Low fertility
2010	128,057	128,057	128,057	128,057	128,057	128,057	128,057	128,057	128,057
2011	127,753	127,785	127,710	127,690	127,722	127,648	127,808	127,841	127,766
2012	127,498	127,582	127,388	127,360	127,445	127,251	127,624	127,709	127,515
2013	127,247	127,402	127,054	127,040	127,194	126,847	127,441	127,595	127,248
2014	126,949	127,191	126,655	126,674	126,917	126,381	127,207	127,450	126,914
2015	126,597	126,947	126,188	126,259	126,609	125,850	126,917	127,268	126,508
2016	126,193	126,669	125,657	125,795	126,270	125,258	126,573	127,049	126,036
2017	125,739	126,356	125,066	125,283	125,900	124,610	126,175	126,792	125,501
2018	125,236	126,006	124,421	124,725	125,495	123,911	125,726	126,496	124,911
2019	124,689	125,620	123,729	124,126	125,057	123,167	125,230	126,161	124,270
2020	124,100	125,196	122,996	123,488	124,584	122,385	124,690	125,786	123,586
2021	123,474	124,735	122,226	122,816	124,076	121,568	124,111	125,372	122,862
2022	122,813	124,239	121,423	122,111	123,536	120,721	123,495	124,921	122,104
2023	122,122	123,709	120,592	121,378	122,964	119,848	122,846	124,434	121,315
2024	121,403	123,149	119,735	120,619	122,364	118,952	122,168	123,914	120,499
2025	120,659	122,559	118,855	119,837	121,737	118,034	121,462	123,363	119,657
2026	119,891	121,943	117,954	119,034	121,085	117,097	120,731	122,784	118,793
2027	119,102	121,302	117,034	118,211	120,410	116,143	119,977	122,178	117,907
2028	118,293	120,638	116,095	117,369	119,713	115,172	119,201	121,547	117,002
2029	117,465	119,951	115,139	116,509	118,994	114,185	118,404	120,891	116,077
2030	116,618	119,243	114,166	115,633	118,257	113,183	117,588	120,214	115,135
2031	115,752	118,514	113,176	114,740	117,500	112,164	116,751	119,515	114,174
2032	114,870	117,767	112,169	113,830	116,726	111,131	115,896	118,795	113,195
2033	113,970	117,003	111,146	112,905	115,936	110,082	115,023	118,057	112,198
2034	113,054	116,222	110,106	111,965	115,131	109,018	114,133	117,302	111,183
2035	112,124	115,427	109,051	111,011	114,313	107,940	113,226	116,531	110,152
2036	111,179	114,620	107,980	110,044	113,483	106,848	112,304	115,747	109,104
2037	110,220	113,802	106,895	109,065	112,644	105,742	111,367	114,950	108,040
2038	109,250	112,974	105,796	108,075	111,798	104,623	110,417	114,143	106,961
2039	108,268	112,140	104,683	107,075	110,945	103,492	109,454	113,328	105,867
2040	107,276	111,300	103,557	106,067	110,089	102,350	108,479	112,506	104,758
2041	106,275	110,457	102,419	105,052	109,230	101,198	107,495	111,679	103,637
2042	105,267	109,611	101,271	104,030	108,371	100,037	106,501	110,848	102,503
2043	104,253	108,766	100,114	103,003	107,514	98,868	105,500	110,016	101,359
2044	103,233	107,921	98,949	101,974	106,658	97,692	104,492	109,183	100,206
2045	102,210	107,078	97,777	100,941	105,806	96,511	103,480	108,351	99,044
2046	101,185	106,239	96,600	99,908	104,958	95,326	102,464	107,521	97,876
2047	100,158	105,403	95,420	98,873	104,114	94,138	101,446	106,694	96,704
2048	99,131	104,570	94,237	97,839	103,274	92,948	100,426	105,869	95,528
2049	98,103	103,741	93,052	96,804	102,438	91,756	99,405	105,047	94,350
2050	97,076	102,915	91,866	95,769	101,604	90,564	98,385	104,229	93,171
2051	96,048	102,091	90,680	94,734	100,772	89,370	97,365	103,412	91,992
2052	95,021	101,269	89,493	93,699	99,941	88,176	96,345	102,597	90,813
2053	93,993	100,446	88,307	92,662	99,110	86,981	95,325	101,783	89,635
2054	92,964	99,623	87,120	91,623	98,276	85,784	94,305	100,969	88,457
2055	91,933	98,797	85,933	90,582	97,439	84,586	93,285	100,154	87,279
2056	90,901	97,967	84,744	89,537	96,597	83,386	92,263	99,336	86,101
2057	89,865	97,134	83,554	88,489	95,751	82,184	91,239	98,514	84,923
2058	88,826	96,295	82,362	87,437	94,898	80,979	90,213	97,688	83,743
2059	87,783	95,450	81,168	86,381	94,040	79,772	89,183	96,857	82,562
2060	86,737	94,600	79,972	85,321	93,177	78,563	88,150	96,021	81,378

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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
2010	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2011	13.1	13.1	13.0	13.1	13.1	13.0	13.1	13.1	13.0
2012	12.9	13.0	12.9	12.9	13.0	12.9	12.9	13.0	12.8
2013	12.8	12.9	12.7	12.8	12.9	12.7	12.8	12.9	12.6
2014	12.7	12.8	12.5	12.7	12.8	12.5	12.6	12.8	12.4
2015	12.5	12.7	12.2	12.5	12.8	12.2	12.5	12.7	12.2
2016	12.3	12.7	12.0	12.4	12.7	12.0	12.3	12.6	11.9
2017	12.2	12.6	11.7	12.2	12.6	11.7	12.1	12.6	11.7
2018	12.0	12.6	11.4	12.1	12.6	11.5	12.0	12.5	11.4
2019	11.9	12.5	11.2	11.9	12.6	11.2	11.8	12.5	11.1
2020	11.7	12.5	10.9	11.8	12.6	11.0	11.7	12.5	10.9
2021	11.6	12.5	10.7	11.7	12.6	10.7	11.5	12.4	10.6
2022	11.4	12.5	10.4	11.5	12.5	10.5	11.4	12.4	10.4
2023	11.3	12.4	10.1	11.3	12.5	10.2	11.2	12.3	10.1
2024	11.1	12.4	9.9	11.2	12.5	9.9	11.1	12.3	9.8
2025	11.0	12.4	9.6	11.0	12.4	9.7	10.9	12.3	9.6
2026	10.8	12.3	9.4	10.9	12.4	9.4	10.7	12.2	9.3
2027	10.7	12.2	9.2	10.7	12.3	9.2	10.6	12.1	9.1
2028	10.5	12.2	9.0	10.6	12.2	9.1	10.5	12.1	8.9
2029	10.4	12.1	8.9	10.5	12.2	8.9	10.3	12.0	8.8
2030	10.3	12.0	8.7	10.4	12.1	8.8	10.2	11.9	8.7
2031	10.2	11.9	8.7	10.3	12.0	8.7	10.2	11.8	8.6
2032	10.2	11.9	8.6	10.3	12.0	8.7	10.1	11.8	8.5
2033	10.1	11.8	8.6	10.2	11.9	8.6	10.0	11.7	8.5
2034	10.1	11.8	8.5	10.2	11.9	8.6	10.0	11.6	8.5
2035	10.1	11.7	8.5	10.2	11.8	8.6	10.0	11.6	8.5
2036	10.0	11.7	8.5	10.1	11.8	8.6	10.0	11.5	8.4
2037	10.0	11.6	8.5	10.1	11.7	8.6	9.9	11.5	8.4
2038	10.0	11.6	8.5	10.1	11.7	8.6	9.9	11.5	8.4
2039	10.0	11.6	8.5	10.1	11.7	8.6	9.9	11.4	8.4
2040	10.0	11.5	8.5	10.1	11.7	8.6	9.9	11.4	8.4
2041	10.0	11.5	8.5	10.1	11.7	8.6	9.9	11.4	8.4
2042	10.0	11.5	8.5	10.1	11.6	8.6	9.9	11.4	8.4
2043	10.0	11.5	8.4	10.1	11.6	8.5	9.8	11.4	8.3
2044	9.9	11.5	8.4	10.0	11.6	8.5	9.8	11.4	8.3
2045	9.9	11.5	8.4	10.0	11.6	8.5	9.8	11.4	8.2
2046	9.9	11.5	8.3	10.0	11.6	8.4	9.7	11.4	8.2
2047	9.8	11.5	8.2	9.9	11.7	8.3	9.7	11.4	8.1
2048	9.8	11.5	8.1	9.9	11.7	8.2	9.7	11.4	8.0
2049	9.7	11.5	8.0	9.8	11.7	8.1	9.6	11.4	7.9
2050	9.7	11.5	7.9	9.8	11.7	8.1	9.5	11.4	7.8
2051	9.6	11.5	7.8	9.7	11.7	8.0	9.5	11.4	7.7
2052	9.6	11.5	7.7	9.7	11.7	7.8	9.4	11.4	7.6
2053	9.5	11.5	7.6	9.6	11.7	7.7	9.4	11.4	7.5
2054	9.4	11.5	7.5	9.6	11.7	7.6	9.3	11.4	7.4
2055	9.4	11.5	7.4	9.5	11.7	7.5	9.2	11.4	7.3
2056	9.3	11.5	7.3	9.4	11.7	7.4	9.2	11.4	7.2
2057	9.3	11.5	7.2	9.4	11.7	7.4	9.1	11.4	7.1
2058	9.2	11.5	7.2	9.3	11.7	7.3	9.1	11.4	7.0
2059	9.2	11.5	7.1	9.3	11.7	7.2	9.0	11.3	7.0
2060	9.1	11.5	7.0	9.3	11.6	7.1	9.0	11.3	6.9

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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
2010	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
2011	63.6	63.6	63.7	63.7	63.6	63.7	63.6	63.6	63.6
2012	62.9	62.8	62.9	62.9	62.9	63.0	62.8	62.8	62.9
2013	62.1	62.0	62.2	62.2	62.1	62.3	62.0	61.9	62.1
2014	61.3	61.2	61.4	61.4	61.3	61.5	61.2	61.1	61.3
2015	60.7	60.5	60.9	60.8	60.6	61.0	60.6	60.4	60.7
2016	60.2	60.0	60.5	60.4	60.1	60.6	60.1	59.8	60.3
2017	59.8	59.6	60.2	60.0	59.7	60.4	59.7	59.4	60.0
2018	59.6	59.2	59.9	59.8	59.4	60.2	59.4	59.0	59.7
2019	59.4	58.9	59.8	59.6	59.1	60.0	59.1	58.7	59.6
2020	59.2	58.6	59.7	59.4	58.9	59.9	58.9	58.4	59.4
2021	59.0	58.4	59.6	59.3	58.7	59.9	58.8	58.2	59.4
2022	59.0	58.3	59.6	59.2	58.6	59.9	58.7	58.0	59.3
2023	58.9	58.1	59.6	59.2	58.4	60.0	58.6	57.8	59.3
2024	58.8	58.0	59.6	59.1	58.3	59.9	58.5	57.6	59.3
2025	58.7	57.8	59.6	59.1	58.1	60.0	58.4	57.5	59.3
2026	58.7	57.7	59.6	59.0	58.1	60.0	58.3	57.4	59.2
2027	58.6	57.6	59.5	59.0	58.0	59.9	58.2	57.3	59.2
2028	58.5	57.5	59.4	58.9	57.9	59.8	58.1	57.1	59.0
2029	58.3	57.3	59.3	58.7	57.7	59.7	57.9	56.9	58.8
2030	58.1	57.1	59.0	58.5	57.5	59.4	57.7	56.7	58.5
2031	58.1	57.1	58.9	58.5	57.5	59.4	57.6	56.7	58.5
2032	57.7	56.8	58.5	58.2	57.3	59.0	57.3	56.4	58.1
2033	57.4	56.6	58.1	57.9	57.0	58.6	56.9	56.1	57.7
2034	57.0	56.2	57.7	57.5	56.7	58.2	56.5	55.8	57.2
2035	56.6	55.9	57.2	57.1	56.4	57.7	56.1	55.4	56.7
2036	56.1	55.5	56.6	56.6	56.0	57.1	55.6	55.0	56.1
2037	55.6	55.0	56.0	56.1	55.5	56.5	55.1	54.6	55.5
2038	55.0	54.6	55.3	55.5	55.1	55.9	54.5	54.1	54.8
2039	54.4	54.1	54.7	54.9	54.6	55.2	53.9	53.6	54.2
2040	53.9	53.7	54.1	54.5	54.2	54.7	53.4	53.2	53.6
2041	53.5	53.4	53.6	54.1	53.9	54.2	53.0	52.9	53.1
2042	53.2	53.1	53.2	53.7	53.6	53.8	52.6	52.6	52.7
2043	52.9	52.8	52.8	53.4	53.4	53.4	52.3	52.3	52.3
2044	52.6	52.7	52.5	53.2	53.2	53.1	52.0	52.1	51.9
2045	52.4	52.5	52.2	52.9	53.0	52.8	51.8	51.9	51.6
2046	52.2	52.3	52.0	52.8	52.9	52.6	51.6	51.8	51.4
2047	52.0	52.2	51.7	52.6	52.8	52.3	51.4	51.7	51.1
2048	51.8	52.1	51.5	52.4	52.7	52.1	51.2	51.5	50.9
2049	51.7	52.0	51.2	52.3	52.5	51.9	51.1	51.4	50.6
2050	51.5	51.9	51.0	52.1	52.4	51.7	50.9	51.3	50.4
2051	51.4	51.8	50.9	52.0	52.4	51.5	50.8	51.2	50.2
2052	51.3	51.8	50.7	52.0	52.4	51.4	50.7	51.2	50.1
2053	51.3	51.7	50.6	51.9	52.3	51.3	50.6	51.1	49.9
2054	51.2	51.7	50.5	51.9	52.4	51.2	50.6	51.1	49.8
2055	51.2	51.8	50.4	51.9	52.4	51.1	50.5	51.1	49.7
2056	51.2	51.8	50.3	51.9	52.5	51.0	50.5	51.2	49.6
2057	51.1	51.8	50.2	51.8	52.5	50.9	50.5	51.2	49.4
2058	51.1	51.9	50.0	51.8	52.5	50.8	50.4	51.2	49.3
2059	51.0	51.9	49.9	51.8	52.6	50.6	50.3	51.2	49.1
2060	50.9	51.9	49.7	51.7	52.6	50.4	50.2	51.2	48.9

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

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
2010	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
2011	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
2012	24.2	24.2	24.2	24.1	24.1	24.1	24.2	24.2	24.3
2013	25.1	25.1	25.2	25.0	25.0	25.1	25.2	25.2	25.3
2014	26.1	26.0	26.1	25.9	25.9	26.0	26.2	26.1	26.2
2015	26.8	26.7	26.9	26.7	26.6	26.7	27.0	26.9	27.1
2016	27.5	27.3	27.6	27.3	27.2	27.4	27.6	27.5	27.8
2017	28.0	27.8	28.1	27.8	27.6	27.9	28.2	28.1	28.3
2018	28.4	28.2	28.6	28.2	28.0	28.4	28.7	28.5	28.9
2019	28.8	28.6	29.0	28.5	28.3	28.7	29.0	28.8	29.3
2020	29.1	28.9	29.4	28.8	28.6	29.1	29.4	29.1	29.7
2021	29.4	29.1	29.7	29.1	28.8	29.4	29.7	29.4	30.0
2022	29.6	29.3	29.9	29.3	28.9	29.6	29.9	29.6	30.3
2023	29.8	29.5	30.2	29.5	29.1	29.8	30.2	29.8	30.6
2024	30.1	29.7	30.5	29.7	29.3	30.1	30.5	30.0	30.9
2025	30.3	29.8	30.8	29.9	29.4	30.4	30.7	30.2	31.2
2026	30.5	30.0	31.0	30.1	29.6	30.6	30.9	30.4	31.4
2027	30.7	30.2	31.3	30.3	29.7	30.8	31.2	30.6	31.7
2028	31.0	30.4	31.6	30.5	29.9	31.1	31.4	30.8	32.0
2029	31.2	30.6	31.9	30.8	30.1	31.4	31.7	31.1	32.4
2030	31.6	30.9	32.3	31.1	30.4	31.8	32.1	31.4	32.8
2031	31.7	30.9	32.4	31.2	30.4	31.9	32.2	31.4	32.9
2032	32.1	31.3	32.8	31.5	30.8	32.3	32.6	31.8	33.4
2033	32.5	31.6	33.3	31.9	31.1	32.7	33.0	32.2	33.9
2034	32.9	32.0	33.8	32.3	31.4	33.2	33.5	32.6	34.4
2035	33.4	32.4	34.3	32.8	31.8	33.7	33.9	33.0	34.9
2036	33.9	32.8	34.9	33.3	32.3	34.3	34.4	33.4	35.5
2037	34.4	33.3	35.5	33.8	32.7	34.9	35.0	33.9	36.1
2038	35.0	33.8	36.1	34.4	33.2	35.5	35.6	34.4	36.8
2039	35.6	34.3	36.8	34.9	33.7	36.1	36.2	34.9	37.4
2040	36.1	34.8	37.3	35.4	34.1	36.7	36.7	35.4	38.0
2041	36.5	35.1	37.9	35.8	34.5	37.2	37.1	35.7	38.5
2042	36.8	35.4	38.3	36.2	34.7	37.6	37.5	36.0	39.0
2043	37.2	35.6	38.7	36.5	35.0	38.0	37.8	36.3	39.4
2044	37.5	35.8	39.1	36.8	35.2	38.4	38.1	36.5	39.8
2045	37.7	36.0	39.4	37.0	35.3	38.7	38.4	36.7	40.1
2046	37.9	36.1	39.7	37.2	35.5	39.0	38.6	36.8	40.5
2047	38.2	36.3	40.1	37.5	35.6	39.3	38.9	37.0	40.8
2048	38.4	36.4	40.4	37.7	35.7	39.7	39.1	37.1	41.1
2049	38.6	36.5	40.7	37.9	35.8	40.0	39.3	37.2	41.4
2050	38.8	36.6	41.0	38.1	35.9	40.3	39.5	37.3	41.8
2051	39.0	36.7	41.3	38.2	35.9	40.5	39.7	37.4	42.0
2052	39.1	36.7	41.5	38.4	36.0	40.8	39.9	37.4	42.3
2053	39.2	36.7	41.8	38.5	36.0	41.0	40.0	37.5	42.5
2054	39.4	36.7	42.0	38.6	36.0	41.2	40.1	37.5	42.8
2055	39.4	36.7	42.2	38.6	35.9	41.4	40.2	37.5	43.0
2056	39.5	36.7	42.4	38.7	35.9	41.5	40.3	37.4	43.2
2057	39.6	36.6	42.6	38.8	35.8	41.7	40.4	37.4	43.4
2058	39.7	36.6	42.8	38.8	35.8	41.9	40.5	37.4	43.7
2059	39.8	36.6	43.1	38.9	35.8	42.2	40.7	37.4	43.9
2060	39.9	36.6	43.3	39.1	35.8	42.4	40.8	37.5	44.2

Current population as of October 1 of each year. Indices for 2010 are based on the jump-off population from the 2010 Population Census by the Statistics Bureau of the Ministry of Internal Affairs and Communications (the population of "not reported" nationality and age is accounted for by distributing it equally across all groups).

E. Assumption Values

Table 4-1 Development of the Total Fertility Rate

Year	Medium fertility	High fertility	Low fertility
2010	1.3873	1.3873	1.3873
2011	1.3879	1.4441	1.3138
2012	1.3705	1.4467	1.2746
2013	1.3897	1.4930	1.2663
2014	1.3864	1.5198	1.2361
2015	1.3798	1.5454	1.2043
2016	1.3715	1.5682	1.1743
2017	1.3626	1.5868	1.1486
2018	1.3539	1.6000	1.1279
2019	1.3461	1.6078	1.1124
2020	1.3397	1.6111	1.1017
2021	1.3348	1.6110	1.0949
2022	1.3315	1.6090	1.0911
2023	1.3298	1.6064	1.0899
2024	1.3294	1.6038	1.0906
2025	1.3302	1.6016	1.0925
2026	1.3316	1.5998	1.0952
2027	1.3333	1.5981	1.0981
2028	1.3348	1.5966	1.1008
2029	1.3361	1.5952	1.1032
2030	1.3373	1.5939	1.1053
2031	1.3383	1.5927	1.1072
2032	1.3392	1.5919	1.1089
2033	1.3401	1.5913	1.1104
2034	1.3410	1.5909	1.1118
2035	1.3418	1.5905	1.1131
2036	1.3425	1.5903	1.1144
2037	1.3433	1.5903	1.1156
2038	1.3441	1.5903	1.1168
2039	1.3449	1.5904	1.1180
2040	1.3457	1.5906	1.1192
2041	1.3465	1.5908	1.1203
2042	1.3472	1.5912	1.1213
2043	1.3479	1.5916	1.1222
2044	1.3486	1.5921	1.1230
2045	1.3492	1.5926	1.1236
2046	1.3497	1.5932	1.1241
2047	1.3502	1.5938	1.1244
2048	1.3505	1.5944	1.1246
2049	1.3508	1.5950	1.1246
2050	1.3509	1.5955	1.1245
2051	1.3510	1.5960	1.1242
2052	1.3510	1.5965	1.1239
2053	1.3510	1.5969	1.1235
2054	1.3509	1.5973	1.1231
2055	1.3508	1.5975	1.1227
2056	1.3507	1.5978	1.1224
2057	1.3507	1.5980	1.1222
2058	1.3506	1.5982	1.1220
2059	1.3507	1.5983	1.1219
2060	1.3507	1.5984	1.1219

Total fertility rate based on the same definition as the Vital Statistics. Figures for 2010 are actual values. Subsequent figures are based on medium-mortality projections.

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

(Years)

Year	Medium mortality			High mortality			Low mortality		
	Male	Female	Sex difference	Male	Female	Sex difference	Male	Female	Sex difference
2010	79.64	86.39	6.75	79.64	86.39	6.75	79.64	86.39	6.75
2011	79.27	85.93	6.66	78.59	85.23	6.64	79.89	86.56	6.67
2012	79.96	86.67	6.72	79.34	86.05	6.71	80.57	87.30	6.73
2013	80.09	86.80	6.72	79.47	86.17	6.71	80.70	87.43	6.73
2014	80.21	86.93	6.72	79.59	86.30	6.71	80.83	87.56	6.73
2015	80.34	87.05	6.72	79.71	86.42	6.71	80.96	87.69	6.73
2016	80.46	87.18	6.72	79.83	86.54	6.71	81.09	87.81	6.73
2017	80.58	87.30	6.72	79.95	86.66	6.71	81.21	87.94	6.73
2018	80.70	87.42	6.72	80.06	86.77	6.71	81.33	88.06	6.73
2019	80.81	87.53	6.72	80.17	86.88	6.71	81.45	88.18	6.73
2020	80.93	87.65	6.72	80.28	86.99	6.71	81.57	88.30	6.73
2021	81.04	87.76	6.72	80.39	87.10	6.71	81.68	88.41	6.73
2022	81.15	87.87	6.72	80.49	87.20	6.71	81.80	88.53	6.73
2023	81.25	87.98	6.72	80.59	87.31	6.71	81.91	88.64	6.73
2024	81.36	88.08	6.72	80.69	87.41	6.71	82.02	88.75	6.73
2025	81.46	88.18	6.72	80.79	87.50	6.71	82.13	88.86	6.73
2026	81.56	88.29	6.72	80.89	87.60	6.71	82.24	88.97	6.73
2027	81.66	88.39	6.72	80.98	87.69	6.72	82.34	89.08	6.74
2028	81.76	88.49	6.72	81.07	87.79	6.72	82.45	89.18	6.74
2029	81.86	88.58	6.73	81.16	87.88	6.72	82.55	89.29	6.74
2030	81.95	88.68	6.73	81.25	87.97	6.72	82.65	89.39	6.74
2031	82.05	88.77	6.73	81.33	88.05	6.72	82.75	89.49	6.74
2032	82.14	88.86	6.73	81.42	88.14	6.72	82.85	89.59	6.74
2033	82.23	88.96	6.73	81.50	88.22	6.72	82.95	89.69	6.74
2034	82.31	89.04	6.73	81.58	88.30	6.72	83.04	89.79	6.74
2035	82.40	89.13	6.73	81.66	88.38	6.72	83.14	89.88	6.74
2036	82.49	89.22	6.73	81.74	88.46	6.72	83.23	89.97	6.74
2037	82.57	89.30	6.73	81.81	88.54	6.72	83.32	90.07	6.74
2038	82.65	89.39	6.73	81.89	88.61	6.72	83.42	90.16	6.74
2039	82.74	89.47	6.73	81.96	88.69	6.72	83.51	90.25	6.74
2040	82.82	89.55	6.73	82.03	88.76	6.72	83.59	90.34	6.75
2041	82.89	89.63	6.73	82.10	88.83	6.72	83.68	90.43	6.75
2042	82.97	89.71	6.74	82.17	88.90	6.73	83.77	90.51	6.75
2043	83.05	89.78	6.74	82.24	88.97	6.73	83.85	90.60	6.75
2044	83.12	89.86	6.74	82.31	89.03	6.73	83.94	90.68	6.75
2045	83.20	89.94	6.74	82.37	89.10	6.73	84.02	90.77	6.75
2046	83.27	90.01	6.74	82.44	89.16	6.73	84.10	90.85	6.75
2047	83.34	90.08	6.74	82.50	89.23	6.73	84.18	90.93	6.75
2048	83.41	90.15	6.74	82.56	89.29	6.73	84.26	91.01	6.75
2049	83.48	90.22	6.74	82.62	89.35	6.73	84.34	91.09	6.75
2050	83.55	90.29	6.74	82.68	89.41	6.73	84.42	91.17	6.75
2051	83.62	90.36	6.74	82.74	89.47	6.73	84.49	91.25	6.75
2052	83.69	90.43	6.74	82.80	89.53	6.73	84.57	91.32	6.76
2053	83.75	90.49	6.74	82.85	89.59	6.73	84.64	91.40	6.76
2054	83.82	90.56	6.74	82.91	89.64	6.73	84.72	91.47	6.76
2055	83.88	90.62	6.74	82.96	89.70	6.73	84.79	91.55	6.76
2056	83.94	90.69	6.75	83.02	89.75	6.73	84.86	91.62	6.76
2057	84.00	90.75	6.75	83.07	89.81	6.74	84.93	91.69	6.76
2058	84.07	90.81	6.75	83.12	89.86	6.74	85.00	91.76	6.76
2059	84.13	90.87	6.75	83.17	89.91	6.74	85.07	91.83	6.76
2060	84.19	90.93	6.75	83.22	89.96	6.74	85.14	91.90	6.76

Figures for 2010 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	-0.00481	-0.00479	55	-0.00065	-0.00028
1	-0.00386	-0.00386	56	-0.00065	-0.00027
2	-0.00254	-0.00256	57	-0.00068	-0.00026
3	-0.00148	-0.00151	58	-0.00074	-0.00022
4	-0.00114	-0.00117	59	-0.00077	-0.00015
5	-0.00143	-0.00145	60	-0.00074	-0.00006
6	-0.00179	-0.00180	61	-0.00062	0.00001
7	-0.00160	-0.00160	62	-0.00047	0.00006
8	-0.00120	-0.00121	63	-0.00034	0.00010
9	-0.00090	-0.00096	64	-0.00026	0.00014
10	-0.00086	-0.00097	65	-0.00021	0.00017
11	-0.00090	-0.00105	66	-0.00014	0.00018
12	-0.00078	-0.00088	67	-0.00008	0.00017
13	-0.00059	-0.00066	68	-0.00003	0.00015
14	-0.00051	-0.00060	69	0.00000	0.00014
15	-0.00054	-0.00048	70	0.00000	0.00014
16	-0.00060	-0.00033	71	0.00000	0.00014
17	-0.00074	-0.00054	72	0.00000	0.00013
18	-0.00109	-0.00146	73	0.00000	0.00012
19	-0.00151	-0.00259	74	0.00000	0.00009
20	-0.00179	-0.00311	75	0.00000	0.00006
21	-0.00175	-0.00264	76	0.00000	0.00003
22	-0.00135	-0.00148	77	0.00000	0.00000
23	-0.00084	-0.00060	78	0.00000	0.00000
24	-0.00051	-0.00050	79	0.00000	0.00000
25	-0.00037	-0.00077	80	0.00000	0.00000
26	-0.00035	-0.00087	81	0.00000	0.00000
27	-0.00034	-0.00073	82	0.00000	0.00000
28	-0.00041	-0.00072	83	0.00000	0.00000
29	-0.00051	-0.00086	84	0.00000	0.00000
30	-0.00061	-0.00103	85	0.00000	0.00000
31	-0.00064	-0.00111	86	0.00000	0.00000
32	-0.00061	-0.00111	87	0.00000	0.00000
33	-0.00058	-0.00112	88	0.00000	0.00000
34	-0.00055	-0.00114	89	0.00000	0.00000
35	-0.00056	-0.00117	90	0.00000	0.00000
36	-0.00061	-0.00114	91	0.00000	0.00000
37	-0.00064	-0.00107	92	0.00000	0.00000
38	-0.00060	-0.00099	93	0.00000	0.00000
39	-0.00054	-0.00094	94	0.00000	0.00000
40	-0.00050	-0.00090	95	0.00000	0.00000
41	-0.00050	-0.00083	96	0.00000	0.00000
42	-0.00051	-0.00075	97	0.00000	0.00000
43	-0.00048	-0.00068	98	0.00000	0.00000
44	-0.00042	-0.00064	99	0.00000	0.00000
45	-0.00038	-0.00061	100	0.00000	0.00000
46	-0.00040	-0.00058	101	0.00000	0.00000
47	-0.00049	-0.00057	102	0.00000	0.00000
48	-0.00056	-0.00056	103	0.00000	0.00000
49	-0.00058	-0.00056	104	0.00000	0.00000
50	-0.00058	-0.00056	105+	0.00000	0.00000
51	-0.00059	-0.00053			
52	-0.00060	-0.00048			
53	-0.00061	-0.00041			
54	-0.00064	-0.00033			

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
2011	-16,181	-27,508	2018	33,071	36,819	2025	33,596	37,404
2012	14,594	16,248	2019	33,181	36,941	2026	33,637	37,449
2013	32,227	35,880	2020	33,277	37,048	2027	33,673	37,489
2014	32,444	36,121	2021	33,360	37,140	2028	33,703	37,523
2015	32,634	36,332	2022	33,432	37,221	2029	33,730	37,553
2016	32,800	36,517	2023	33,495	37,291	2030	33,753	37,578
2017	32,945	36,678	2024	33,549	37,351			

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	0.00582	0.00627	55	-0.00230	-0.00154
1	0.00592	0.00674	56	-0.00214	-0.00145
2	0.00518	0.00613	57	-0.00231	-0.00145
3	0.00392	0.00470	58	-0.00259	-0.00160
4	0.00265	0.00330	59	-0.00271	-0.00175
5	0.00200	0.00266	60	-0.00255	-0.00187
6	0.00215	0.00304	61	-0.00212	-0.00181
7	0.00263	0.00377	62	-0.00172	-0.00157
8	0.00323	0.00438	63	-0.00150	-0.00128
9	0.00374	0.00458	64	-0.00141	-0.00108
10	0.00399	0.00444	65	-0.00135	-0.00095
11	0.00389	0.00413	66	-0.00114	-0.00080
12	0.00370	0.00407	67	-0.00091	-0.00066
13	0.00449	0.00500	68	-0.00075	-0.00058
14	0.00562	0.00532	69	-0.00067	-0.00052
15	0.00593	0.00597	70	-0.00054	-0.00048
16	0.01169	0.01357	71	-0.00027	-0.00039
17	0.02843	0.03384	72	0.00000	-0.00034
18	0.05056	0.06310	73	0.00010	-0.00028
19	0.07075	0.09067	74	0.00005	-0.00023
20	0.08543	0.10577	75	-0.00009	-0.00023
21	0.09392	0.10366	76	-0.00016	-0.00020
22	0.09787	0.08935	77	-0.00015	-0.00013
23	0.09838	0.07320	78	-0.00009	-0.00005
24	0.09231	0.05994	79	-0.00002	0.00002
25	0.07726	0.04984	80	0.00001	0.00003
26	0.06082	0.04250	81	0.00001	-0.00001
27	0.04972	0.03738	82	-0.00001	-0.00006
28	0.04182	0.03249	83	-0.00002	-0.00006
29	0.03456	0.02696	84	-0.00002	-0.00004
30	0.02766	0.02155	85	-0.00001	-0.00001
31	0.02151	0.01710	86	-0.00001	0.00001
32	0.01699	0.01380	87	-0.00003	0.00001
33	0.01350	0.01146	88	-0.00003	-0.00001
34	0.00953	0.00933	89	0.00000	-0.00002
35	0.00505	0.00723	90	0.00000	0.00000
36	0.00124	0.00550	91	0.00000	0.00000
37	-0.00089	0.00472	92	0.00000	0.00000
38	-0.00127	0.00487	93	0.00000	0.00000
39	-0.00105	0.00514	94	0.00000	0.00000
40	-0.00095	0.00510	95	0.00000	0.00000
41	-0.00117	0.00474	96	0.00000	0.00000
42	-0.00122	0.00415	97	0.00000	0.00000
43	-0.00100	0.00351	98	0.00000	0.00000
44	-0.00089	0.00288	99	0.00000	0.00000
45	-0.00096	0.00225	100	0.00000	0.00000
46	-0.00124	0.00179	101	0.00000	0.00000
47	-0.00141	0.00146	102	0.00000	0.00000
48	-0.00132	0.00110	103	0.00000	0.00000
49	-0.00127	0.00073	104	0.00000	0.00000
50	-0.00157	0.00029	105+	0.00000	0.00000
51	-0.00214	-0.00031			
52	-0.00265	-0.00090			
53	-0.00282	-0.00135			
54	-0.00262	-0.00153			

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
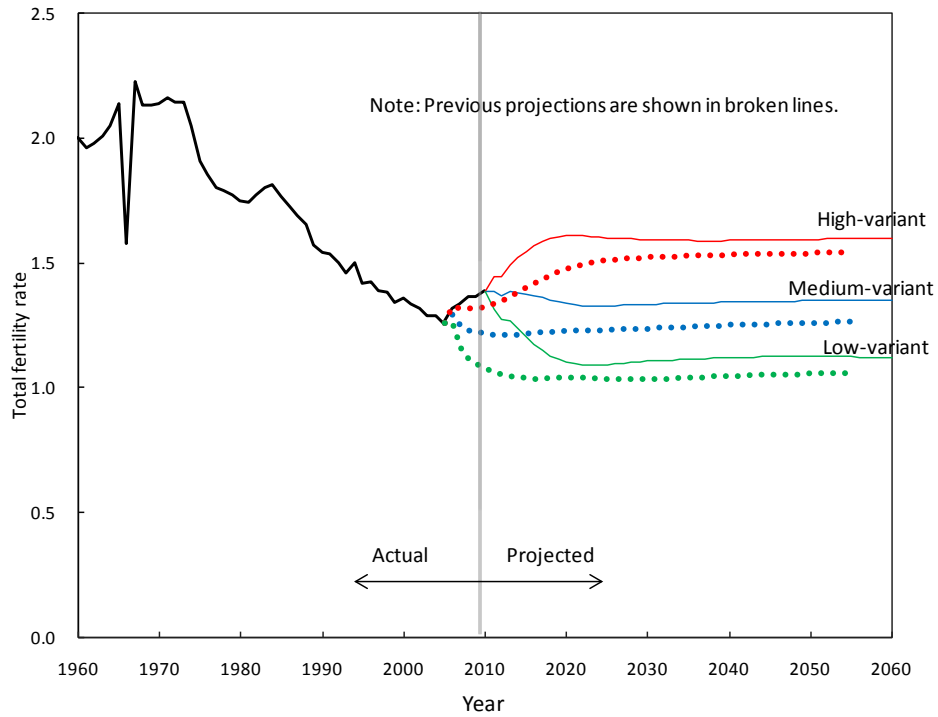

Figure 4-2 Trends of life expectancy: Medium-, high-, and low-variant projections
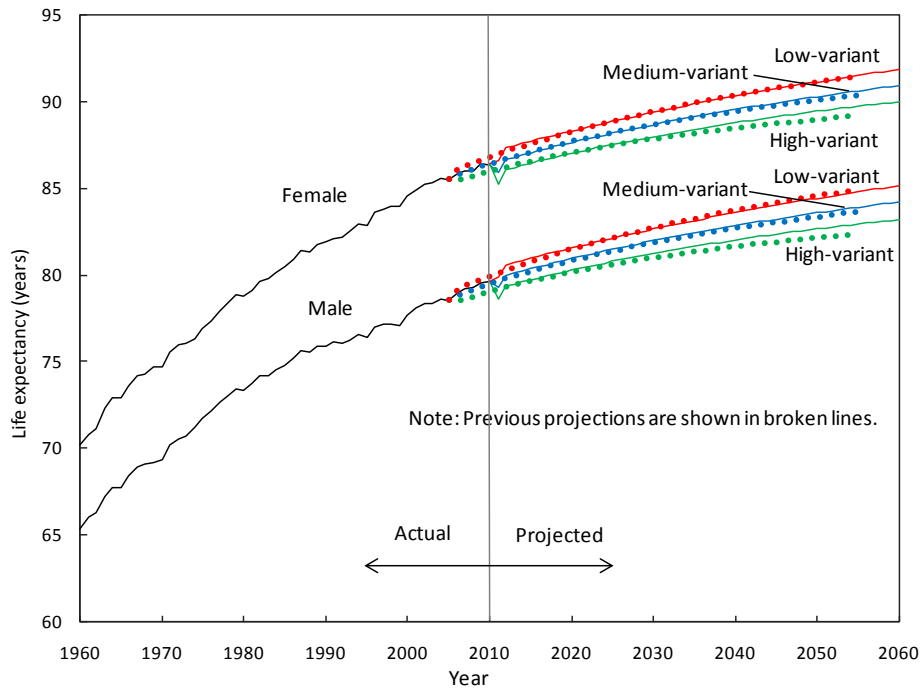
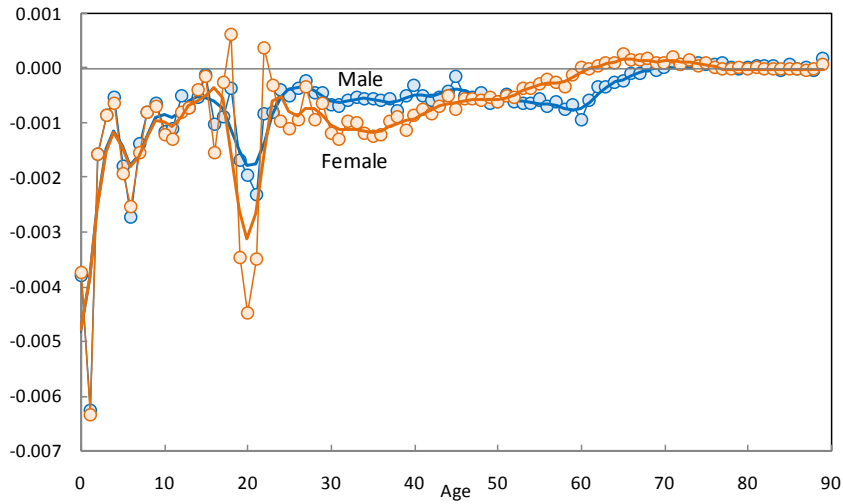**Figure 4-3 Age-specific net international migration rates by sex for Japanese**

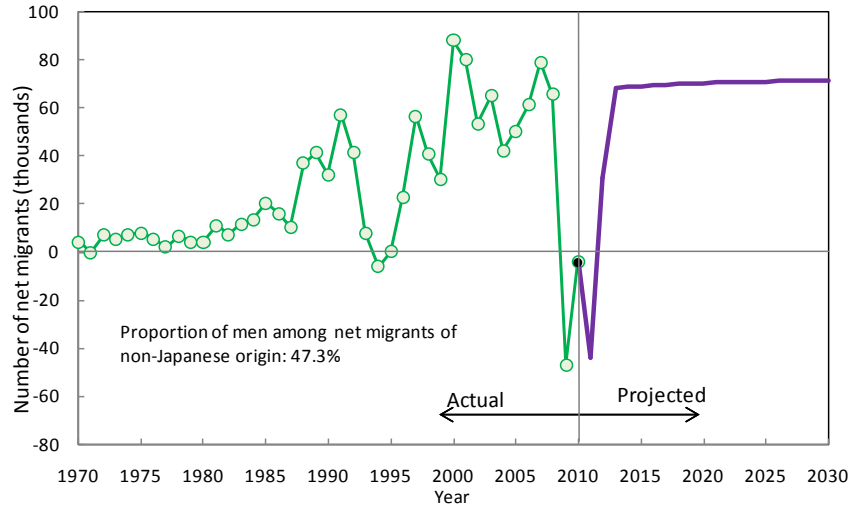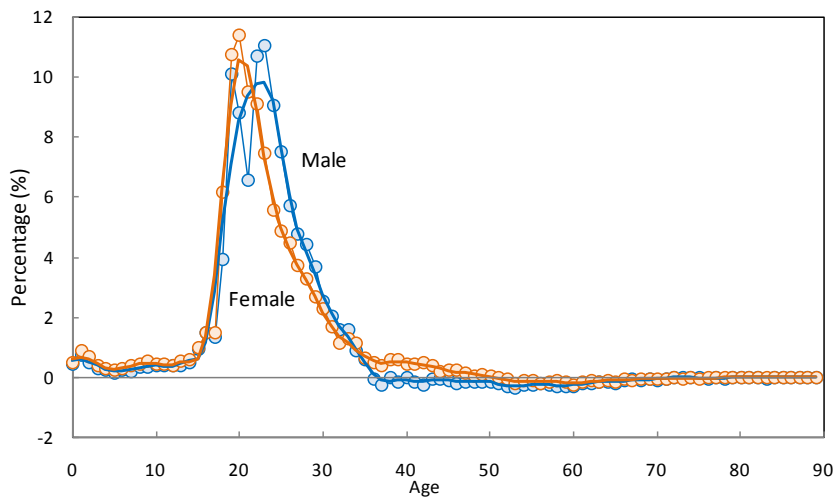**Figure 4-4 Number of net migrants of non-Japanese origin (both sexes)**

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

F. Results of Auxiliary Projections

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 +
2061	85,680	7,788	43,595	34,296	9.1	50.9	40.0
2062	84,611	7,671	42,989	33,951	9.1	50.8	40.1
2063	83,533	7,560	42,368	33,605	9.0	50.7	40.2
2064	82,446	7,454	41,754	33,238	9.0	50.6	40.3
2065	81,355	7,354	41,132	32,869	9.0	50.6	40.4
2066	80,260	7,259	40,512	32,490	9.0	50.5	40.5
2067	79,165	7,167	39,897	32,100	9.1	50.4	40.5
2068	78,072	7,080	39,302	31,690	9.1	50.3	40.6
2069	76,984	6,994	38,718	31,272	9.1	50.3	40.6
2070	75,904	6,911	38,165	30,829	9.1	50.3	40.6
2071	74,834	6,828	37,603	30,403	9.1	50.2	40.6
2072	73,776	6,746	37,029	30,001	9.1	50.2	40.7
2073	72,731	6,663	36,446	29,622	9.2	50.1	40.7
2074	71,702	6,580	35,888	29,234	9.2	50.1	40.8
2075	70,689	6,495	35,329	28,865	9.2	50.0	40.8
2076	69,693	6,410	34,755	28,528	9.2	49.9	40.9
2077	68,714	6,323	34,210	28,181	9.2	49.8	41.0
2078	67,751	6,234	33,678	27,839	9.2	49.7	41.1
2079	66,805	6,144	33,163	27,498	9.2	49.6	41.2
2080	65,875	6,053	32,670	27,152	9.2	49.6	41.2
2081	64,960	5,962	32,197	26,801	9.2	49.6	41.3
2082	64,060	5,869	31,745	26,445	9.2	49.6	41.3
2083	63,173	5,777	31,310	26,085	9.1	49.6	41.3
2084	62,298	5,685	30,890	25,722	9.1	49.6	41.3
2085	61,434	5,594	30,482	25,358	9.1	49.6	41.3
2086	60,582	5,504	30,084	24,994	9.1	49.7	41.3
2087	59,740	5,415	29,693	24,632	9.1	49.7	41.2
2088	58,907	5,329	29,306	24,273	9.0	49.7	41.2
2089	58,084	5,244	28,922	23,918	9.0	49.8	41.2
2090	57,269	5,161	28,540	23,568	9.0	49.8	41.2
2091	56,463	5,081	28,158	23,224	9.0	49.9	41.1
2092	55,665	5,004	27,776	22,886	9.0	49.9	41.1
2093	54,876	4,929	27,393	22,554	9.0	49.9	41.1
2094	54,095	4,857	27,010	22,227	9.0	49.9	41.1
2095	53,322	4,788	26,627	21,907	9.0	49.9	41.1
2096	52,558	4,721	26,245	21,592	9.0	49.9	41.1
2097	51,803	4,656	25,864	21,282	9.0	49.9	41.1
2098	51,056	4,593	25,485	20,978	9.0	49.9	41.1
2099	50,319	4,532	25,108	20,679	9.0	49.9	41.1
2100	49,591	4,472	24,733	20,386	9.0	49.9	41.1
2101	48,873	4,414	24,362	20,097	9.0	49.8	41.1
2102	48,164	4,356	23,994	19,814	9.0	49.8	41.1
2103	47,465	4,299	23,631	19,535	9.1	49.8	41.2
2104	46,777	4,243	23,273	19,261	9.1	49.8	41.2
2105	46,098	4,187	22,921	18,991	9.1	49.7	41.2
2106	45,430	4,131	22,574	18,725	9.1	49.7	41.2
2107	44,772	4,075	22,234	18,463	9.1	49.7	41.2
2108	44,124	4,019	21,901	18,205	9.1	49.6	41.3
2109	43,487	3,962	21,575	17,949	9.1	49.6	41.3
2110	42,860	3,906	21,257	17,697	9.1	49.6	41.3

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 +
2061	93,738	10,754	48,688	34,296	11.5	51.9	36.6
2062	92,863	10,642	48,269	33,951	11.5	52.0	36.6
2063	91,976	10,531	47,840	33,605	11.5	52.0	36.5
2064	91,081	10,421	47,421	33,238	11.4	52.1	36.5
2065	90,179	10,313	46,997	32,869	11.4	52.1	36.4
2066	89,274	10,207	46,578	32,490	11.4	52.2	36.4
2067	88,368	10,103	46,165	32,100	11.4	52.2	36.3
2068	87,466	10,003	45,773	31,690	11.4	52.3	36.2
2069	86,568	9,905	45,391	31,272	11.4	52.4	36.1
2070	85,679	9,811	45,039	30,829	11.5	52.6	36.0
2071	84,801	9,720	44,678	30,403	11.5	52.7	35.9
2072	83,936	9,632	44,303	30,001	11.5	52.8	35.7
2073	83,086	9,547	43,917	29,622	11.5	52.9	35.7
2074	82,252	9,464	43,554	29,234	11.5	53.0	35.5
2075	81,436	9,384	43,187	28,865	11.5	53.0	35.4
2076	80,637	9,306	42,773	28,558	11.5	53.0	35.4
2077	79,856	9,229	42,368	28,259	11.6	53.1	35.4
2078	79,093	9,154	41,957	27,982	11.6	53.0	35.4
2079	78,346	9,079	41,545	27,722	11.6	53.0	35.4
2080	77,616	9,005	41,134	27,476	11.6	53.0	35.4
2081	76,900	8,931	40,727	27,241	11.6	53.0	35.4
2082	76,197	8,857	40,325	27,015	11.6	52.9	35.5
2083	75,507	8,783	39,929	26,795	11.6	52.9	35.5
2084	74,829	8,708	39,542	26,579	11.6	52.8	35.5
2085	74,160	8,633	39,164	26,363	11.6	52.8	35.5
2086	73,499	8,556	38,795	26,148	11.6	52.8	35.6
2087	72,847	8,479	38,436	25,932	11.6	52.8	35.6
2088	72,202	8,401	38,085	25,715	11.6	52.7	35.6
2089	71,563	8,323	37,742	25,497	11.6	52.7	35.6
2090	70,929	8,244	37,405	25,280	11.6	52.7	35.6
2091	70,301	8,165	37,073	25,063	11.6	52.7	35.7
2092	69,677	8,086	36,746	24,846	11.6	52.7	35.7
2093	69,059	8,007	36,422	24,629	11.6	52.7	35.7
2094	68,444	7,928	36,103	24,413	11.6	52.7	35.7
2095	67,834	7,851	35,787	24,197	11.6	52.8	35.7
2096	67,229	7,774	35,474	23,981	11.6	52.8	35.7
2097	66,628	7,698	35,165	23,765	11.6	52.8	35.7
2098	66,031	7,623	34,858	23,550	11.5	52.8	35.7
2099	65,439	7,550	34,553	23,336	11.5	52.8	35.7
2100	64,851	7,478	34,251	23,122	11.5	52.8	35.7
2101	64,268	7,408	33,950	22,910	11.5	52.8	35.6
2102	63,690	7,340	33,651	22,699	11.5	52.8	35.6
2103	63,116	7,273	33,352	22,491	11.5	52.8	35.6
2104	62,546	7,208	33,053	22,285	11.5	52.8	35.6
2105	61,980	7,144	32,755	22,081	11.5	52.8	35.6
2106	61,419	7,081	32,457	21,881	11.5	52.8	35.6
2107	60,861	7,019	32,159	21,683	11.5	52.8	35.6
2108	60,308	6,959	31,862	21,488	11.5	52.8	35.6
2109	59,759	6,899	31,565	21,295	11.5	52.8	35.6
2110	59,214	6,840	31,269	21,105	11.6	52.8	35.6

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 +
2061	78,766	5,493	38,977	34,296	7.0	49.5	43.5
2062	77,550	5,379	38,220	33,951	6.9	49.3	43.8
2063	76,326	5,275	37,446	33,605	6.9	49.1	44.0
2064	75,095	5,179	36,678	33,238	6.9	48.8	44.3
2065	73,860	5,091	35,901	32,869	6.9	48.6	44.5
2066	72,623	5,009	35,124	32,490	6.9	48.4	44.7
2067	71,386	4,932	34,354	32,100	6.9	48.1	45.0
2068	70,152	4,859	33,604	31,690	6.9	47.9	45.2
2069	68,925	4,788	32,864	31,272	6.9	47.7	45.4
2070	67,705	4,719	32,157	30,829	7.0	47.5	45.5
2071	66,496	4,650	31,443	30,403	7.0	47.3	45.7
2072	65,300	4,580	30,718	30,001	7.0	47.0	45.9
2073	64,118	4,509	29,987	29,622	7.0	46.8	46.2
2074	62,952	4,436	29,282	29,234	7.0	46.5	46.4
2075	61,802	4,360	28,578	28,865	7.1	46.2	46.7
2076	60,671	4,282	27,899	28,489	7.1	46.0	47.0
2077	59,557	4,201	27,275	28,080	7.1	45.8	47.1
2078	58,461	4,119	26,682	27,661	7.0	45.6	47.3
2079	57,383	4,034	26,122	27,227	7.0	45.5	47.4
2080	56,321	3,947	25,600	26,774	7.0	45.5	47.5
2081	55,277	3,860	25,111	26,306	7.0	45.4	47.6
2082	54,248	3,772	24,651	25,825	7.0	45.4	47.6
2083	53,234	3,684	24,214	25,336	6.9	45.5	47.6
2084	52,234	3,596	23,796	24,842	6.9	45.6	47.6
2085	51,249	3,510	23,391	24,348	6.8	45.6	47.5
2086	50,276	3,425	22,995	23,856	6.8	45.7	47.4
2087	49,316	3,343	22,605	23,368	6.8	45.8	47.4
2088	48,368	3,263	22,218	22,887	6.7	45.9	47.3
2089	47,433	3,187	21,832	22,414	6.7	46.0	47.3
2090	46,509	3,113	21,445	21,951	6.7	46.1	47.2
2091	45,596	3,043	21,056	21,497	6.7	46.2	47.1
2092	44,696	2,977	20,666	21,053	6.7	46.2	47.1
2093	43,807	2,914	20,274	20,619	6.7	46.3	47.1
2094	42,930	2,855	19,880	20,196	6.6	46.3	47.0
2095	42,066	2,799	19,485	19,782	6.7	46.3	47.0
2096	41,215	2,745	19,090	19,379	6.7	46.3	47.0
2097	40,377	2,695	18,696	18,986	6.7	46.3	47.0
2098	39,553	2,647	18,303	18,603	6.7	46.3	47.0
2099	38,742	2,601	17,913	18,229	6.7	46.2	47.1
2100	37,947	2,556	17,526	17,865	6.7	46.2	47.1
2101	37,166	2,513	17,144	17,510	6.8	46.1	47.1
2102	36,401	2,470	16,768	17,163	6.8	46.1	47.2
2103	35,652	2,428	16,398	16,826	6.8	46.0	47.2
2104	34,919	2,386	16,037	16,496	6.8	45.9	47.2
2105	34,202	2,345	15,684	16,174	6.9	45.9	47.3
2106	33,502	2,303	15,341	15,858	6.9	45.8	47.3
2107	32,818	2,261	15,009	15,549	6.9	45.7	47.4
2108	32,152	2,218	14,687	15,246	6.9	45.7	47.4
2109	31,501	2,176	14,377	14,948	6.9	45.6	47.5
2110	30,867	2,133	14,079	14,655	6.9	45.6	47.5

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 +
2061	84,252	7,781	43,508	32,964	9.2	51.6	39.1
2062	83,174	7,663	42,902	32,608	9.2	51.6	39.2
2063	82,088	7,552	42,281	32,255	9.2	51.5	39.3
2064	80,997	7,446	41,667	31,883	9.2	51.4	39.4
2065	79,904	7,346	41,046	31,512	9.2	51.4	39.4
2066	78,810	7,251	40,426	31,133	9.2	51.3	39.5
2067	77,719	7,160	39,811	30,748	9.2	51.2	39.6
2068	76,633	7,072	39,217	30,344	9.2	51.2	39.6
2069	75,555	6,987	38,633	29,935	9.2	51.1	39.6
2070	74,487	6,903	38,080	29,504	9.3	51.1	39.6
2071	73,432	6,821	37,518	29,093	9.3	51.1	39.6
2072	72,390	6,738	36,945	28,707	9.3	51.0	39.7
2073	71,364	6,656	36,363	28,345	9.3	51.0	39.7
2074	70,354	6,572	35,805	27,976	9.3	50.9	39.8
2075	69,360	6,488	35,247	27,626	9.4	50.8	39.8
2076	68,384	6,402	34,674	27,309	9.4	50.7	39.9
2077	67,425	6,315	34,130	26,981	9.4	50.6	40.0
2078	66,483	6,226	33,599	26,658	9.4	50.5	40.1
2079	65,557	6,136	33,085	26,335	9.4	50.5	40.2
2080	64,645	6,046	32,592	26,008	9.4	50.4	40.2
2081	63,748	5,954	32,121	25,674	9.3	50.4	40.3
2082	62,864	5,862	31,669	25,334	9.3	50.4	40.3
2083	61,993	5,769	31,234	24,989	9.3	50.4	40.3
2084	61,133	5,678	30,815	24,640	9.3	50.4	40.3
2085	60,284	5,586	30,408	24,289	9.3	50.4	40.3
2086	59,444	5,496	30,010	23,938	9.2	50.5	40.3
2087	58,615	5,408	29,619	23,588	9.2	50.5	40.2
2088	57,794	5,321	29,233	23,241	9.2	50.6	40.2
2089	56,982	5,236	28,850	22,897	9.2	50.6	40.2
2090	56,179	5,154	28,467	22,558	9.2	50.7	40.2
2091	55,384	5,074	28,086	22,224	9.2	50.7	40.1
2092	54,597	4,997	27,704	21,897	9.2	50.7	40.1
2093	53,818	4,922	27,322	21,575	9.1	50.8	40.1
2094	53,048	4,850	26,939	21,259	9.1	50.8	40.1
2095	52,287	4,780	26,557	20,949	9.1	50.8	40.1
2096	51,534	4,713	26,175	20,645	9.1	50.8	40.1
2097	50,790	4,648	25,795	20,347	9.2	50.8	40.1
2098	50,055	4,586	25,416	20,054	9.2	50.8	40.1
2099	49,330	4,525	25,039	19,766	9.2	50.8	40.1
2100	48,614	4,465	24,665	19,484	9.2	50.7	40.1
2101	47,909	4,406	24,295	19,208	9.2	50.7	40.1
2102	47,213	4,349	23,928	18,936	9.2	50.7	40.1
2103	46,527	4,292	23,565	18,670	9.2	50.6	40.1
2104	45,852	4,236	23,208	18,408	9.2	50.6	40.1
2105	45,186	4,180	22,856	18,151	9.2	50.6	40.2
2106	44,531	4,124	22,510	17,898	9.3	50.5	40.2
2107	43,886	4,068	22,171	17,648	9.3	50.5	40.2
2108	43,252	4,012	21,838	17,402	9.3	50.5	40.2
2109	42,628	3,955	21,513	17,159	9.3	50.5	40.3
2110	42,014	3,899	21,196	16,919	9.3	50.4	40.3

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 +
2061	87,105	7,795	43,675	35,635	8.9	50.1	40.9
2062	86,047	7,678	43,069	35,300	8.9	50.1	41.0
2063	84,977	7,566	42,448	34,963	8.9	50.0	41.1
2064	83,897	7,461	41,834	34,602	8.9	49.9	41.2
2065	82,808	7,361	41,211	34,237	8.9	49.8	41.3
2066	81,714	7,265	40,590	33,859	8.9	49.7	41.4
2067	80,617	7,174	39,975	33,468	8.9	49.6	41.5
2068	79,520	7,086	39,381	33,053	8.9	49.5	41.6
2069	78,424	7,001	38,796	32,627	8.9	49.5	41.6
2070	77,334	6,917	38,242	32,174	8.9	49.5	41.6
2071	76,250	6,835	37,680	31,736	9.0	49.4	41.6
2072	75,177	6,753	37,105	31,319	9.0	49.4	41.7
2073	74,116	6,670	36,522	30,923	9.0	49.3	41.7
2074	73,068	6,587	35,964	30,517	9.0	49.2	41.8
2075	72,035	6,502	35,404	30,129	9.0	49.1	41.8
2076	71,019	6,417	34,829	29,773	9.0	49.0	41.9
2077	70,019	6,329	34,283	29,406	9.0	49.0	42.0
2078	69,036	6,241	33,751	29,044	9.0	48.9	42.1
2079	68,070	6,151	33,235	28,684	9.0	48.8	42.1
2080	67,120	6,060	32,740	28,320	9.0	48.8	42.2
2081	66,187	5,969	32,267	27,951	9.0	48.8	42.2
2082	65,268	5,876	31,814	27,578	9.0	48.7	42.3
2083	64,364	5,784	31,379	27,201	9.0	48.8	42.3
2084	63,474	5,692	30,958	26,823	9.0	48.8	42.3
2085	62,595	5,601	30,550	26,444	8.9	48.8	42.2
2086	61,729	5,511	30,152	26,067	8.9	48.8	42.2
2087	60,874	5,422	29,760	25,692	8.9	48.9	42.2
2088	60,028	5,335	29,373	25,320	8.9	48.9	42.2
2089	59,193	5,251	28,989	24,954	8.9	49.0	42.2
2090	58,367	5,168	28,606	24,593	8.9	49.0	42.1
2091	57,549	5,088	28,224	24,238	8.8	49.0	42.1
2092	56,741	5,011	27,841	23,889	8.8	49.1	42.1
2093	55,940	4,936	27,458	23,546	8.8	49.1	42.1
2094	55,148	4,864	27,074	23,210	8.8	49.1	42.1
2095	54,364	4,794	26,691	22,879	8.8	49.1	42.1
2096	53,589	4,727	26,309	22,553	8.8	49.1	42.1
2097	52,822	4,662	25,927	22,233	8.8	49.1	42.1
2098	52,064	4,599	25,547	21,917	8.8	49.1	42.1
2099	51,315	4,538	25,170	21,607	8.8	49.0	42.1
2100	50,575	4,479	24,795	21,302	8.9	49.0	42.1
2101	49,844	4,420	24,423	21,001	8.9	49.0	42.1
2102	49,123	4,363	24,055	20,706	8.9	49.0	42.2
2103	48,412	4,306	23,691	20,415	8.9	48.9	42.2
2104	47,710	4,249	23,332	20,128	8.9	48.9	42.2
2105	47,018	4,193	22,979	19,846	8.9	48.9	42.2
2106	46,337	4,137	22,632	19,568	8.9	48.8	42.2
2107	45,666	4,081	22,292	19,293	8.9	48.8	42.2
2108	45,005	4,025	21,958	19,022	8.9	48.8	42.3
2109	44,354	3,969	21,632	18,754	8.9	48.8	42.3
2110	43,714	3,912	21,313	18,489	8.9	48.8	42.3

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
2061	85,680	93,738	78,766	84,252	92,302	77,346	87,105	95,171	80,185
2062	84,611	92,863	77,550	83,174	91,416	76,121	86,047	94,307	78,979
2063	83,533	91,976	76,326	82,088	90,522	74,890	84,977	93,429	77,763
2064	82,446	91,081	75,095	80,997	89,621	73,655	83,897	92,540	76,538
2065	81,355	90,179	73,860	79,904	88,717	72,418	82,808	91,642	75,305
2066	80,260	89,274	72,623	78,810	87,813	71,182	81,714	90,738	74,069
2067	79,165	88,368	71,386	77,719	86,911	69,950	80,617	89,831	72,829
2068	78,072	87,466	70,152	76,633	86,014	68,724	79,520	88,924	71,590
2069	76,984	86,568	68,925	75,555	85,126	67,507	78,424	88,020	70,354
2070	75,904	85,679	67,705	74,487	84,249	66,300	77,334	87,121	69,124
2071	74,834	84,801	66,496	73,432	83,384	65,106	76,250	86,230	67,901
2072	73,776	83,936	65,300	72,390	82,535	63,927	75,177	85,351	66,689
2073	72,731	83,086	64,118	71,364	81,702	62,764	74,116	84,485	65,489
2074	71,702	82,252	62,952	70,354	80,887	61,618	73,068	83,633	64,304
2075	70,689	81,436	61,802	69,360	80,089	60,489	72,035	82,798	63,134
2076	69,693	80,637	60,671	68,384	79,310	59,379	71,019	81,980	61,982
2077	68,714	79,856	59,557	67,425	78,548	58,286	70,019	81,179	60,846
2078	67,751	79,093	58,461	66,483	77,804	57,211	69,036	80,397	59,729
2079	66,805	78,346	57,383	65,557	77,075	56,153	68,070	79,631	58,630
2080	65,875	77,616	56,321	64,645	76,362	55,112	67,120	78,882	57,548
2081	64,960	76,900	55,277	63,748	75,662	54,086	66,187	78,149	56,483
2082	64,060	76,197	54,248	62,864	74,975	53,075	65,268	77,430	55,435
2083	63,173	75,507	53,234	61,993	74,300	52,078	64,364	76,725	54,404
2084	62,298	74,829	52,234	61,133	73,634	51,095	63,474	76,031	53,387
2085	61,434	74,160	51,249	60,284	72,977	50,125	62,595	75,349	52,385
2086	60,582	73,499	50,276	59,444	72,329	49,167	61,729	74,676	51,397
2087	59,740	72,847	49,316	58,615	71,687	48,222	60,874	74,013	50,422
2088	58,907	72,202	48,368	57,794	71,051	47,288	60,028	73,357	49,460
2089	58,084	71,563	47,433	56,982	70,421	46,366	59,193	72,708	48,510
2090	57,269	70,929	46,509	56,179	69,797	45,455	58,367	72,065	47,572
2091	56,463	70,301	45,596	55,384	69,177	44,556	57,549	71,428	46,646
2092	55,665	69,677	44,696	54,597	68,562	43,669	56,741	70,796	45,733
2093	54,876	69,059	43,807	53,818	67,951	42,794	55,940	70,169	44,830
2094	54,095	68,444	42,930	53,048	67,344	41,931	55,148	69,547	43,940
2095	53,322	67,834	42,066	52,287	66,742	41,082	54,364	68,929	43,062
2096	52,558	67,229	41,215	51,534	66,144	40,245	53,589	68,316	42,196
2097	51,803	66,628	40,377	50,790	65,550	39,422	52,822	67,707	41,343
2098	51,056	66,031	39,553	50,055	64,961	38,614	52,064	67,103	40,504
2099	50,319	65,439	38,742	49,330	64,376	37,820	51,315	66,503	39,678
2100	49,591	64,851	37,947	48,614	63,796	37,041	50,575	65,908	38,866
2101	48,873	64,268	37,166	47,909	63,220	36,278	49,844	65,318	38,068
2102	48,164	63,690	36,401	47,213	62,649	35,530	49,123	64,732	37,286
2103	47,465	63,116	35,652	46,527	62,082	34,799	48,412	64,150	36,519
2104	46,777	62,546	34,919	45,852	61,519	34,084	47,710	63,573	35,768
2105	46,098	61,980	34,202	45,186	60,960	33,386	47,018	63,000	35,033
2106	45,430	61,419	33,502	44,531	60,406	32,704	46,337	62,432	34,314
2107	44,772	60,861	32,818	43,886	59,856	32,039	45,666	61,867	33,612
2108	44,124	60,308	32,152	43,252	59,310	31,390	45,005	61,307	32,927
2109	43,487	59,759	31,501	42,628	58,768	30,758	44,354	60,750	32,258
2110	42,860	59,214	30,867	42,014	58,230	30,142	43,714	60,198	31,606

Current population as of October 1 of each year.