

What the New Demographic Data Tell Us

Jun Saito, Senior Research Fellow
Japan Center for Economic Research

August 3, 2015

New demographic data available

New interesting demographic data have been published in the recent months.

One is the data on the fertility rate for 2014. According to the Annual Vital Statistics Report for 2014 published by the Ministry of Health, Labour and Welfare (MHLW) in June 5, the fertility rate fell in 2014 from 1.43 in the previous year to 1.42. It is the first decline in the fertility rate since 2005 when the rate reached the record low of 1.26.

The other is the Abridged Life Tables for 2014 also published by the MHLW in July 31. It showed that the life expectancy at birth for females was 86.83 and that for males 80.50. Both are an increase from 2013 when the number of years was 86.61 and 80.21, respectively. Both females and males renewed the record highs of the longevity for Japan.

Are they in line with the assumptions underlying population projection?

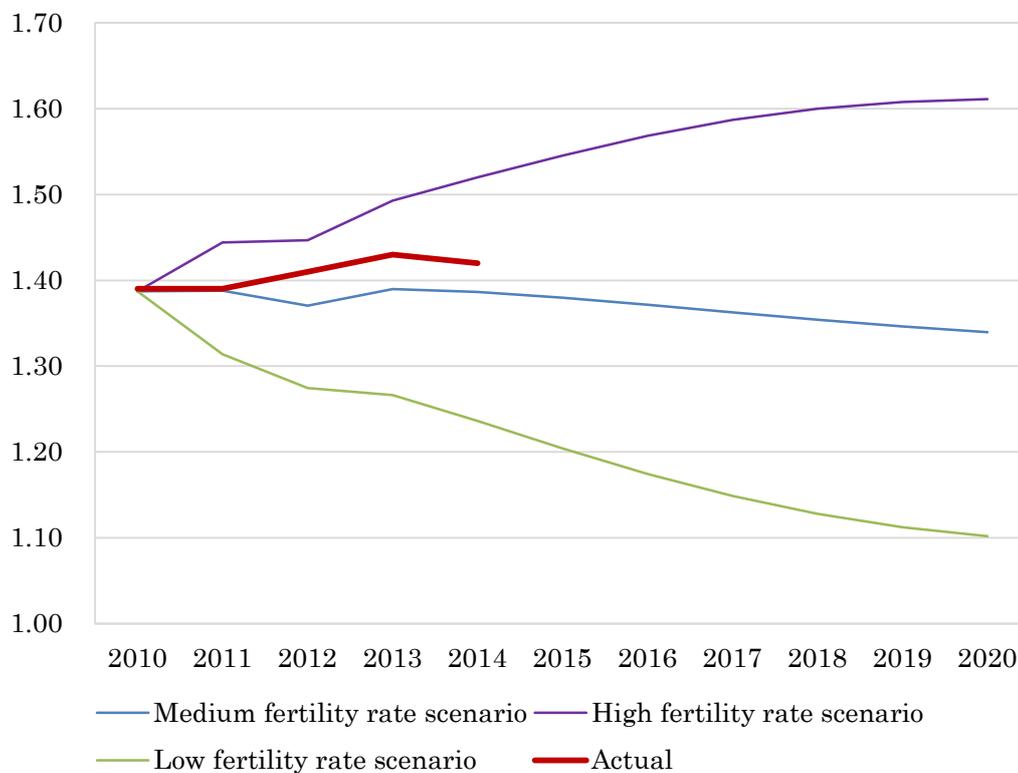
We know that the population of Japan has been shrinking. We also know that the trend is going to continue in the future, and, as a result, it is expected to drastically change the shape of the nation socially and economically. One of the important information in that respect is the Population Projection for Japan provided by the National Institution of Population and Social Security Research. It projects that the population of Japan, which is 128 million in 2010, is expected to decline to 87 million in 2060, and further to 43 million in 2110.

It should be noted, however, that the figures of the projection cited above are those of the standard case projection which is based on the assumptions that both fertility and mortality rates follow the medium rate scenarios. There are two other scenarios for both the fertility and mortality rates, high and low. Since the Population Projection, which has been revised every 5 years, has a track record of being too optimistic in the past, it is important to check whether the recent numbers are consistent with the standard case assumptions.

Figure 1 plots the actual fertility rate, including the most recent one mentioned above, against the assumed rate up till 2020 (rates after 2021 have been omitted). It shows that

the actual rate is roughly consistent with the medium rate scenario, if not somewhat higher than assumed.

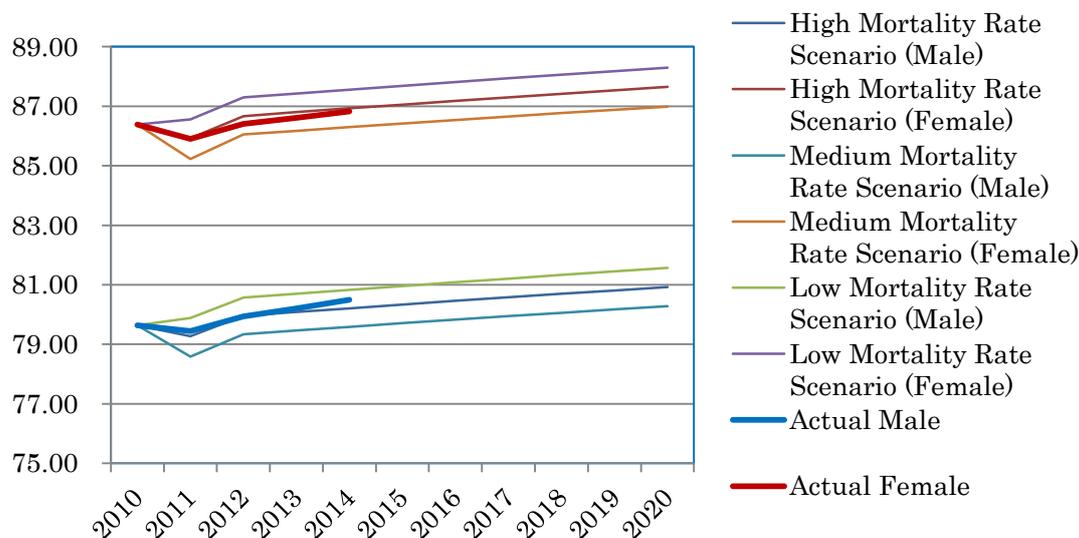
Figure 1: Fertility Rates: the Scenarios and the Actual



(Data Source) Ministry of Health, Labour and Welfare, and the National Institution of Population and Social Security Research

Similarly, Figure 2 shows the life expectancy at birth for both females and males. That for females is somewhat lower than the medium mortality rate case, implying somewhat higher mortality case than assumed. On the other hand, that for males is somewhat higher than the medium mortality rate case, implying somewhat lower mortality rate than assumed. Generally speaking, however, it can be said that life expectancy at birth is also consistent with the medium mortality rate scenario.

Figure 2: Life Expectancy at Birth: the Scenarios and the Actual



(Data Source) Ministry of Health, Labour and Welfare, and the National Institution of Population and Social Security Research

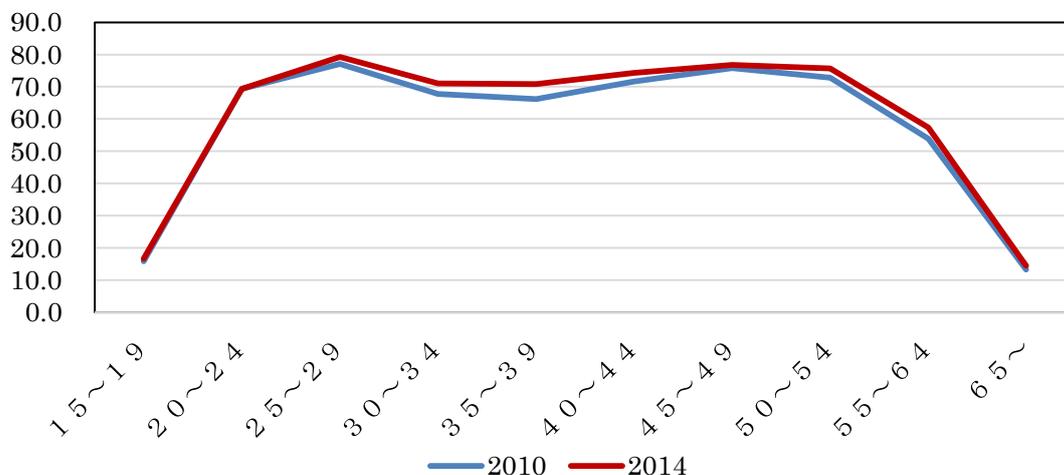
To sum up, the recent data tend to confirm that the population decline can be expected to take place as the standard case (a combination of medium fertility and mortality rate scenarios) shows. The policy responses should be designed and implemented accordingly.

Is the increase in fertility rate accompanied by increase in female participation rate?

With respect to the developments in the fertility rate, it is also interesting to see how the participation rate of females has changed during the period when the fertility rate has been on an increasing trend. Has the recent rise in the fertility rate (with the exception of 2014) been realized without harming the participation rate of females? It has long been claimed that the current setting is hard for females to have a family and a job at the same time. Priority has been given to policies that improve the environment for female workers to have both. Therefore, increase in the fertility rate cannot be viewed as satisfactory unless it is accompanied by an increase in the female participation rate.

Changes in participation rate between 2010 and 2014 can be seen in Figure 3. It shows that it has increased during the period in the age groups of 30s and 40s: The M-shaped curve has been alleviated somewhat. It suggests that the improvement in the fertility rate took place hand in hand with the increase in participation rate of females.

Figure 3: Female Participation Rate (Total Average)

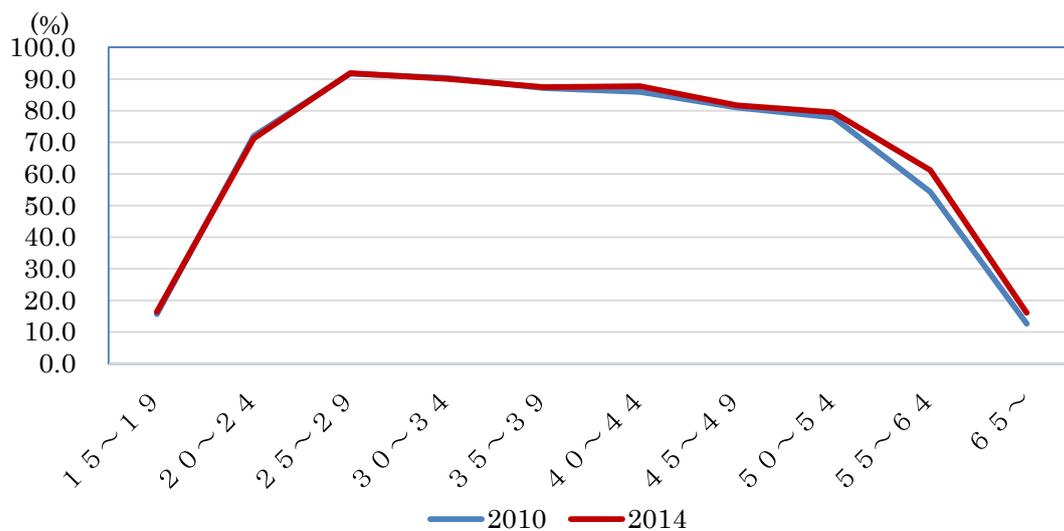


(Data Source) Ministry of Internal Affairs and Communications

However, if the increase in participation rate only took place in unmarried females, but not in married females, it does not imply a better work-life balance situation. It is necessary, therefore, to look into the breakdown of the participation rate.

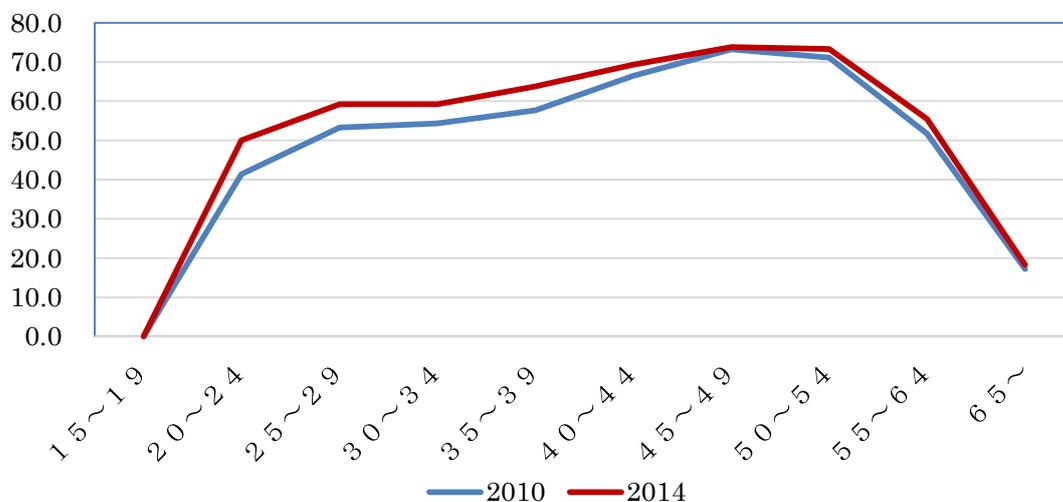
As a matter of fact, Figures 4 and 5 confirm that increase in participation rate took place not in the unmarried females, which is already significantly high, but in the married females, where there is still a room for more improvement.

Figure 4: Female Participation Rate of the Unmarried



(Data Source) Ministry of Internal Affairs and Communications

Figure 5: Female Participation Rate of the Married



(Data Source) Ministry of Internal Affairs and Communications

While the population is still heading for a long-term decline, the recent developments in the fertility rate and female participation rate show changes are taking place in the right direction; a very limited, but a steady, signs of improvement in the child bearing environment that does not sacrifice employment. Policies should be strengthened more significantly and more rapidly to further improve the work-life balance situation.