

The Retirement of Baby Boomers and Its Impact on the Labor Market

by Taro Saito

Economic Research Department

tsaito@nli-research.co.jp

1. Introduction

In 2007, Japan's so-called baby boomers will reach the mandatory retirement age of 60 and start generating a large wave of new retirees. The "baby boom generation" generally refers to persons born from 1947 to 1949. As of 2004, this age group comprised 6.80 million persons, eclipsing all age groups coming before or after.¹ We examine the impact that the flood of new retirees is expected to have on the labor market.

2. Labor Force is Already Declining

1. 5.01 Million Baby Boomers Now Working

To predict the labor situation from 2007, we first need to know how many baby boomers are now working. Unfortunately, public data on this specific age group is not available. The *Labour Force Survey* (Statistics Bureau, Ministry of Internal Affairs and Communications) provides the most current data, but baby boomers (aged 55 to 57 in 2004) are lumped together into the 55-59 age group. On the other hand, the *National Census* (Statistics Bureau, MIC) provides labor force data in one-year age segments, but is conducted only every five years.

Thus to estimate the baby boom labor force, we first calculated the labor force participation rates and employment rates for each age using national census data. We then broke down the *Labour Force Survey's* five-year age group data into one-year segments to estimate the labor force and number of employed persons for each age. Since the last national census was conducted in 2000, we approximated the shape of the participation rate and employment rate curves by age using linear interpolation of previous census data.

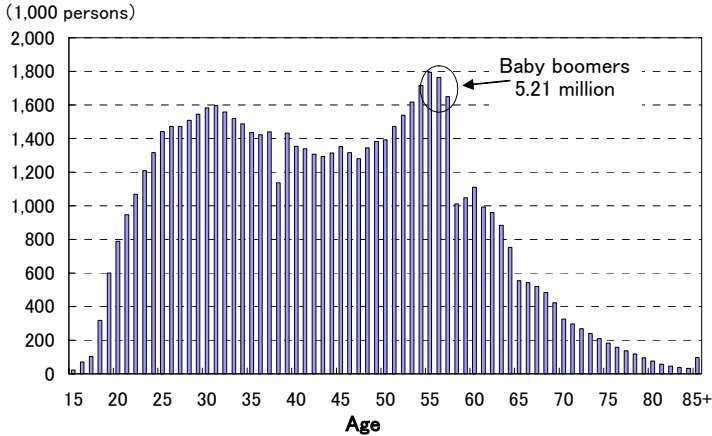
For 2004, we estimate the baby boom labor force at 5.21 million, of whom 5.01 million persons are employed (Figure 1). Since the baby boom labor force peaked in the early 1990s at 6 million, this

¹ By comparison, in 2004 there were 4.64 million persons born in 1944-1946, and 5.91 million persons born in 1950-1952.

means that approximately 800,000 persons have already exited the labor market. The decrease is attributed to the declining participation rate of baby boomers as they reach their late 50s.

Still, the baby-boom labor force remains significantly larger than any other labor force segment, and comprises as much as 8% of the total labor force. As such, the impending retirement of baby boomers could have large repercussions on the labor market.

Figure 1 Labor Force Composition by Age (2004)



Sources: Estimated from MIC Statistics Bureau, *National Census*, *Labour Force Survey*, and *Population Projection*.

2. Increase in Retiring Old Workers

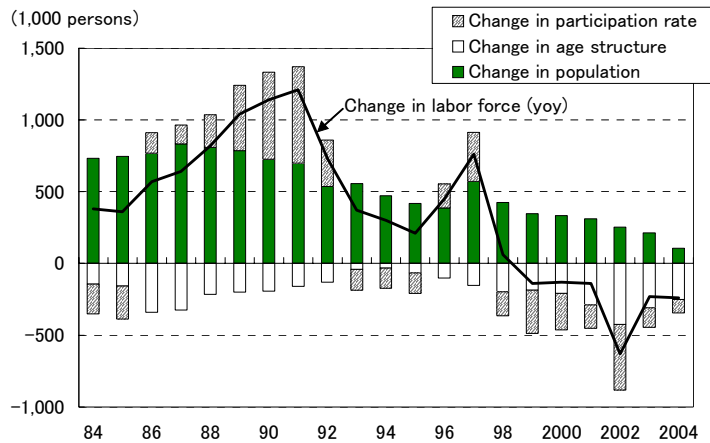
Notwithstanding the baby boom retirement wave from 2007, Japan’s total labor force has already declined for six straight years since 1999. In 2004, the labor force fell to 66.42 million, a decline of 1.51 million (2.2%) from the 1998 peak of 67.93 million.

Labor force trends are affected by three factors: (1) growth of the population aged 15 and over, (2) aging of the population structure, and (3) change in labor force participation rate by age group (Figure 2).

While the population aged 15 and over has been growing, the population’s growth has shrunk from over 500,000 persons per year in the early 1990s, to 110,000 in 2004.

Meanwhile, aging erodes the labor force by tilting the population structure toward the elderly, who have a lower labor participation rate. Since 2002, the effect of population aging has overtaken population growth, initiating a demographic trend that contracts the labor force.

Figure 2 Factors Affecting the Labor Force

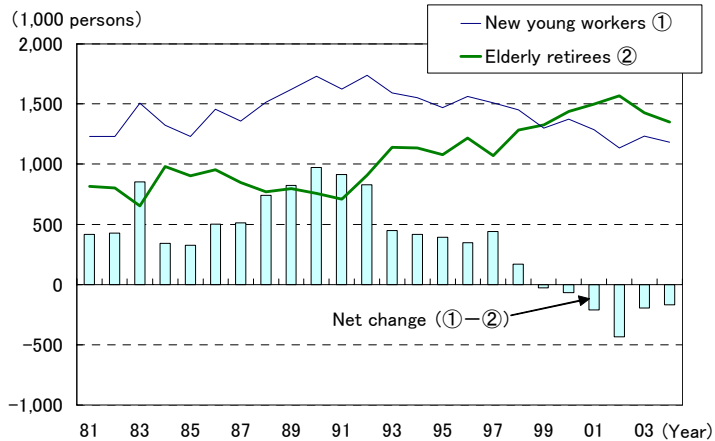


Source: MIC Statistics Bureau, *Labour Force Survey*.

Using labor force data by age group, we compared trends in the number of new young workers and retiring old workers (permanently leaving the work force).² New young workers peaked in 1992 at 1.74 million, and subsequently declined to 1.18 million in 2004. On the other hand, the number of new retirees remained below 1 million until around 1990, but started rising in the early 1990s, and reached 1.35 million in 2004 (Figure 3).

Thus since 1999, retiring old workers have outnumbered new young workers. From this perspective, the labor force is already feeling the growing impact of the lower birthrate and aging.

Figure 3 Number of New Young Workers and Retiring Old Workers



Source: Estimated from MIC Statistics Bureau, *Labour Force Survey*, and *National Census*.

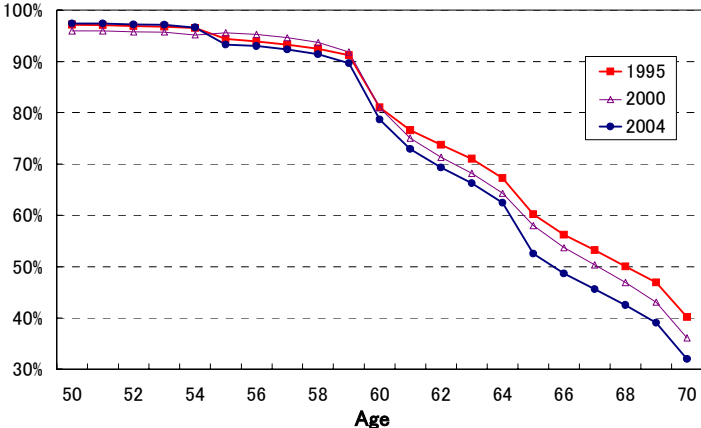
The decline in young workers is attributed to several factors: the lower birthrate and decrease in population, decreasing labor participation rate amid the harsh employment environment, and

² The number of new young workers is calculated as the change in persons aged 15 to 25 in the current year (age t) from the previous year (age t-1). The number of retiring old workers is the change in persons aged 50 and over in the current year (age t) from the previous year (age t-1).

increase in non-employed new graduates and NEET (persons not in employment, education or training).

Retiring workers are increasing not only because elderly persons are increasing, but because their labor force participation rate is declining. Recently, the participation rate has decreased most conspicuously among men aged 60 and over as self-employed persons comprise a smaller share of all employed persons (Figure 4). In fact, the self-employment ratio in the 55-64 age group has persistently declined from over 30% in the early 1970s to around 15% today.

Figure 4 Labor Force Participation Rate of Elderly Men



Sources: Estimated from *National Census*, and *Labour Force Survey*.

Since self-employed persons do not face mandatory retirement, they can continue to work as long as their health allows. On the other hand, most company employees face mandatory retirement at age 60, and many choose to retire earlier when possible. Thus the declining self-employment ratio among elderly persons reduces their participation rate, and reduces the average retirement age of all employed persons.

3. Baby Boomers’ Retirement and the Labor Force

To predict future labor force trends, we need to consider the impact of the Amended Law Concerning Stable Employment of the Elderly enforced in December 2004. In the past, employers were only required not to set the retirement age below 60. But from fiscal 2006, they must extend employment security in stages to age 65.

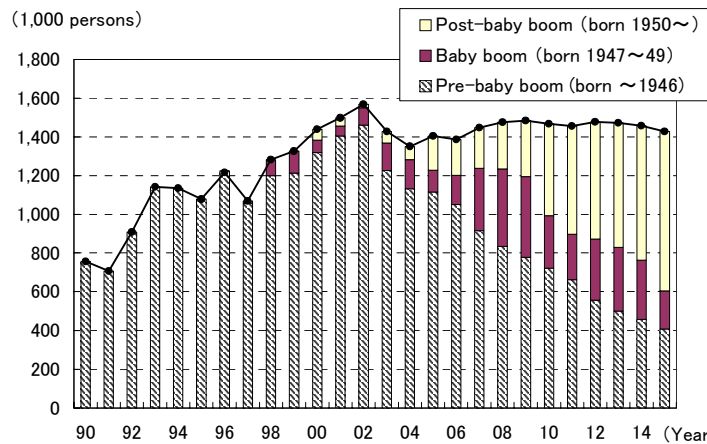
We first calculate a baseline forecast for labor force trends under the present employment system and mandatory retirement age of 60. Then we estimate the impact when continuous employment until age 65 becomes entrenched as an employment practice.

1. Baseline Projection Under the Present System

To project the labor force from 2005 under the present employment system, we assume that participation rates by gender and age remain unchanged from 2004 estimates, and apply these rates to the median population projection by the National Institute of Population and Social Security Research (January 2002).³

Due to early retirement programs, approximately 100,000 baby boomers now retire every year, and will continue to do so until 2006. But in 2007, 320,000 baby boomers born in 1947 will retire at age 60. This will be followed by 400,000 baby boomers in 2008 and 2009 as those born in 1948 and 1949 reach age 60 (Figure 5).

Figure 5 Number of Retiring Old Workers (by Age Group)



Note: Retiring old workers are persons aged 50 and over who leave the labor force permanently. Estimates are based on actual data to 2004, and projections from 2005.

But despite the first wave of baby boom retirees in 2007, the total number of retirees will not change significantly from 2006 to 2007—the increase is only 60,000 persons, from 1.39 million in 2006 to 1.45 million in 2007, with the number leveling off at 1.40 million thereafter.

While the labor force participation rate is certain to drop for persons aged 59 and 60, the decline is approximately 10 percentage points for men and 7 percentage points for women. In other words, no more than one in ten persons aged 60 will retire in a given year. This means that the first retirement wave of 60-year-old baby boomers in 2007 will have only a limited impact on the labor market.

But the problem is not only the direct impact of retiring baby boomers. The labor force will continue to decline as the structural problem of low birthrate and aging worsen. Even if elderly retirees level off, it does not mean that the labor force will stop shrinking. In fact, the low

³ For simplicity, we omit two emerging trends: the declining labor participation rate among older men as the ratio of self-employed persons decreases, and rising participation rate among women of many age groups in recent years.

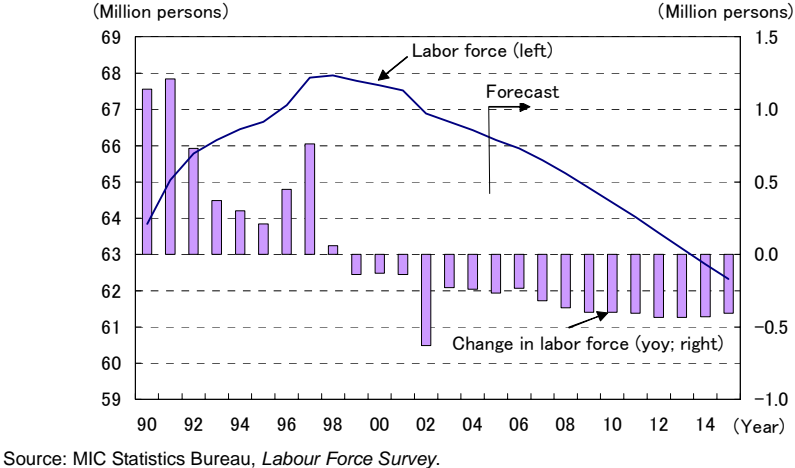
birthrate is likely to limit the number of young workers entering the labor market. As long as all retiring workers are not replaced, the labor force decrease will continue unabated.

From 2004 to 2015, if current labor force participation rates by age remain unchanged, aging will reduce the overall participation rate from 73.4% to 69.7% for men, and from 48.3% to 44.5% for women. Moreover, the total population will start to shrink in 2007, aggravating the labor force decline.

From 2004, the labor force will decrease by 300,000 to 400,000 persons every year, shrinking to 64.43 million persons in 2010 (a decrease of 1.99 million from 2004), and 62.32 million persons in 2015 (a decrease of 4.10 million from 2004; Figure 6). Thus the labor force decline will not occur suddenly from 2007; it has already begun, and if the present employment system is maintained, will decline steadily after baby boomers have left the labor force in 2010.

The size of the labor force decline over the next decade even eclipses the 3.13 million persons who were unemployed in 2004. But due to mismatching in the labor market, unemployment will not be eradicated. What is likely to happen is for structural unemployment to exist amid a severe labor shortage. In that case, a sharp decrease in labor supply is likely to significantly erode the potential economic growth rate.

Figure 6 Labor Force Projection—Baseline



2. Impact of Continued Employment to Age 65

To halt the rapid decline of the labor force, it is critical to expand job opportunities for the elderly. Toward this end, the Amended Law Concerning Stable Employment of the Elderly requires employers to implement one of the following measures from fiscal 2006: (1) raise the mandatory retirement age, (2) introduce a system for continued employment, or (3) abolish mandatory retirement.

Figure 7 Timeline for Raising the Mandatory Retirement Age

2006	2007	2008	2009	2010	2011	2012	2013
62	63			64			65

Source: Ministry of Health, Labor and Welfare

Surprisingly, over 70% of companies already have post-retirement employment extension or re-employment systems. However, since these systems are operated in a very limited manner, no increase in the employment rate among persons aged 60 and over has been observed. It remains unclear to what extent the new law will succeed in expanding employment for the elderly.

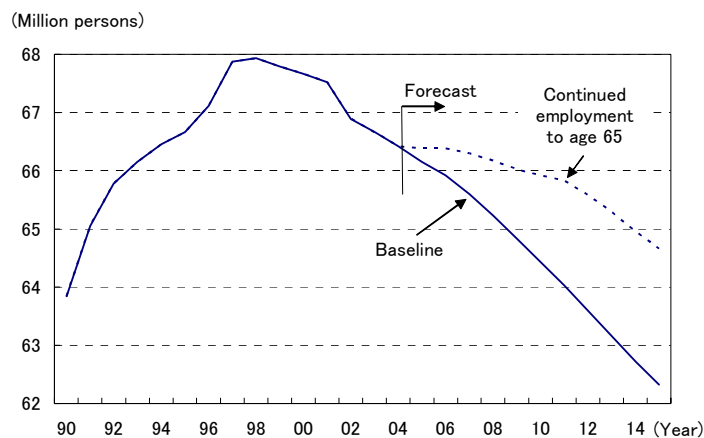
However, we assume that employment extension is smoothly implemented and that the labor participation rate among persons aged 55 to 64 will rise steadily to 2015, when it will reach today's participation for persons aged 50 to 59.

Under this scenario, participation rates in 2015 will be 71.8% for men and 46.7% for women, or 2.1 and 2.2 percentage points higher respectively than the baseline case.

While the labor force will shrink to 65.92 million persons in 2010 (500,000 persons less than in 2004) and 64.66 million persons in 2015 (1.76 million persons less than in 2004), the decline is significantly milder than the baseline case (Figure 8). The decline will grow from 2010, but this is inevitable considering that the total population will also decline by 1.5 million persons from its 2006 peak.

Thus to avert serious labor shortages, an effective method is to boost the participation rate of elderly persons by raising the mandatory retirement age and promoting continued employment.

Figure 8 Labor Force Projection—Continued Employment to Age 65



Source: MIC Statistics Bureau, *Labour Force Survey*.

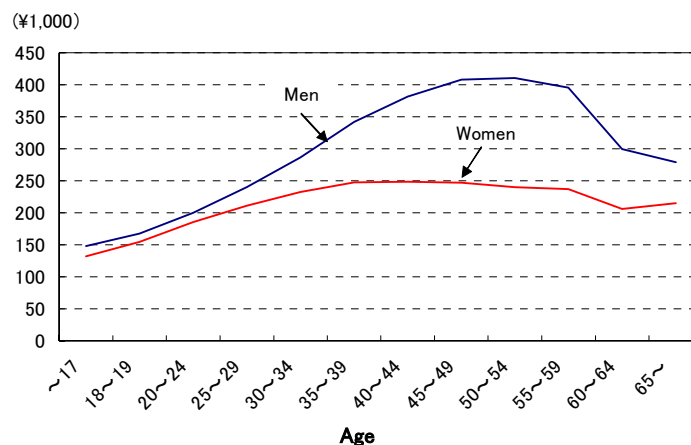
4. Wage System Revision is Vital for Continued Employment

When considering labor market conditions after baby boomers retire, an important perspective is how labor costs will change for companies.

The retirement of baby boomers will inevitably decrease the number of employees and reduce labor costs. But unless labor productivity rises, the lower employment will lead to lower production and sales. This will push up the labor cost to sales ratio and strain corporate profits. Companies are sensitive not only to the trend in total labor cost but in labor cost per worker.

By gender, wages of male employees rise steadily with age and peak at age 50~54, then dip slightly at age 55~59 before plunging from age 60. For female employees, the peak occurs earlier at age 40~44, but the ensuing decline is more moderate (Figure 9).

Figure 9 Scheduled Cash Earnings by Age Group (2004)

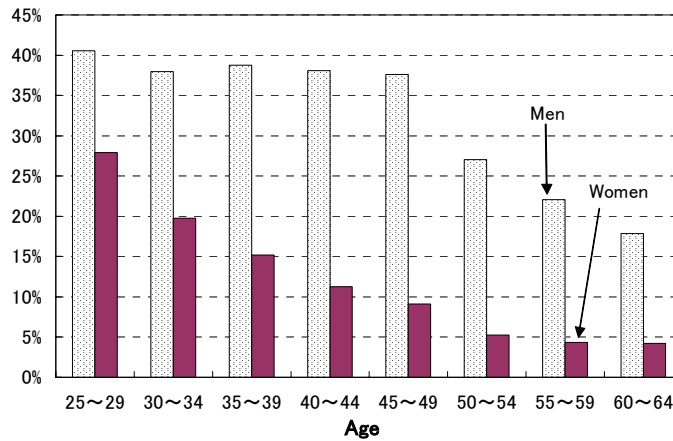


Source: MHLW, *Basic Survey on Wage Structure*.

According to one view, since baby boom employees earn relatively high wages, the average wage per worker will decrease regardless of whether baby boomers retire or continue working after age 60 at much lower wages.

On the other hand, we cannot neglect the fact that workers are becoming more educated. College graduates earn significantly higher wages than high school graduates. Reflecting the secular rise in college enrollment rate, a growing percentage of younger workers are becoming college educated. Thus the proportion of high-wage, college-educated workers is certain to continue growing (Figure 10).

Figure 10 Percentage of College-Educated Workers by Age Group (2004)

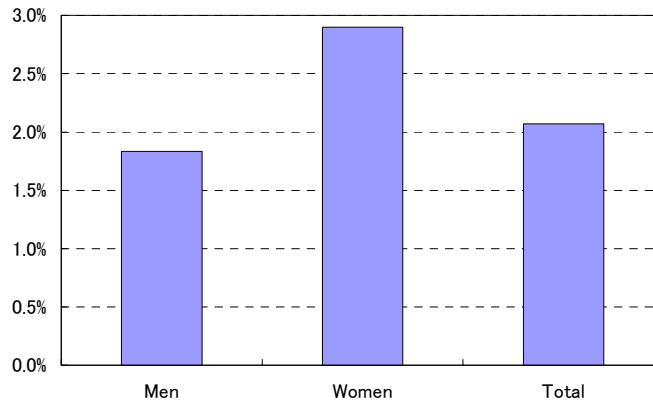


Source: MHLW, *Basic Survey on Wage Structure*.

Setting wages by gender, age and education at 2004 levels, we estimated how changes in the labor force composition by age and education level will affect average wages from 2004 to 2010.

We estimate that in the six-year period from 2004 to 2010, average wages will rise 2.1%—1.8% for male workers, and 2.9% for female workers (Figure 11). The main factor driving the wage increase is the growing proportion of high-wage college-educated workers, particularly with the recent rise in college enrollment rate among women.

Figure 11 Growth of Average Wage from 2004 to 2010



Note: Setting wages at the 2004 level by gender, age and education level, we estimated the increase in average wage (scheduled cash earnings) in 2010 resulting from changes in age and education composition of the labor force.
Source: MHLW, *Basic Survey on Wage Structure*.

Thus if the present wage curve is maintained, wage costs may actually *increase* after baby boomers retire. In this case, not only will the expanded employment of elderly persons be at risk, but the employment environment for young persons will fail to improve after the baby boomers retire.

From a quantitative perspective, the decline in labor supply leaves little doubt that labor demand

and supply conditions will improve significantly. But structural factors will continue to put upward pressure on wages. If nothing is done, companies risk confronting not only chronic labor shortages but higher labor costs.

To alleviate the impact of structural factors on labor cost, companies need to revise employment practices such as the seniority-based wage system. This point is especially critical for the success of the continued employment of elderly persons.