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**How Changes in the Japanese Labor Market Shape Marriage and Fertility Decisions:  
Toward Measures to Help Women Maintain Balance among Family, Work, and Social  
Responsibilities**

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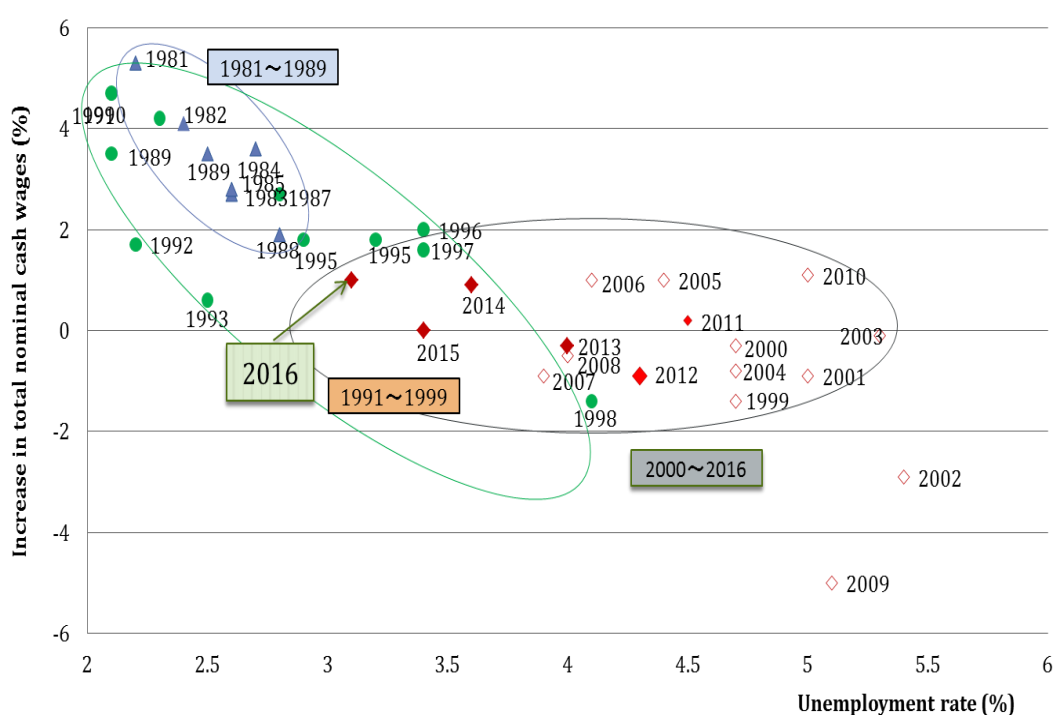
# How Changes in the Japanese Labor Market Shape Marriage and Fertility Decisions: Toward Measures to Help Women Maintain Balance among Family, Work, and Social Responsibilities

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## I. Population Decline and the Labor Market

Japan has faced serious labor shortages in recent years as the country's economy has been recovering. As the Phillips curve in Figure 1-1 shows, the unemployment rate is substantially lower for 2016 than for previous years. At the same time, however, there has been little wage growth.

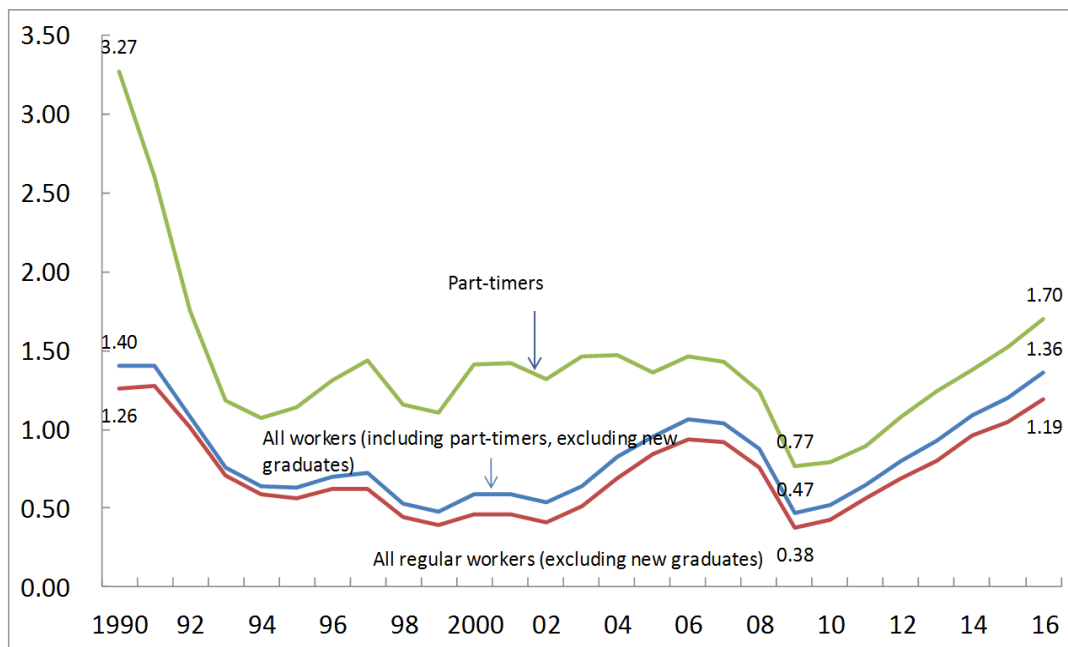
Figure 1-1: Phillips curve in Japan



Source: Ministry of Internal Affairs and Communications Statistics Bureau, Labor Force Survey; Ministry of Health, Labor, and Welfare, Monthly Statistical Survey of Labor

Figure 1-2 shows the ratio of job openings to job seekers at public employment offices (Hello Work offices). We see that the ratio for not only part-timers but also full-timers substantially exceeds 1 in recent years, and that there is a growing labor shortage.

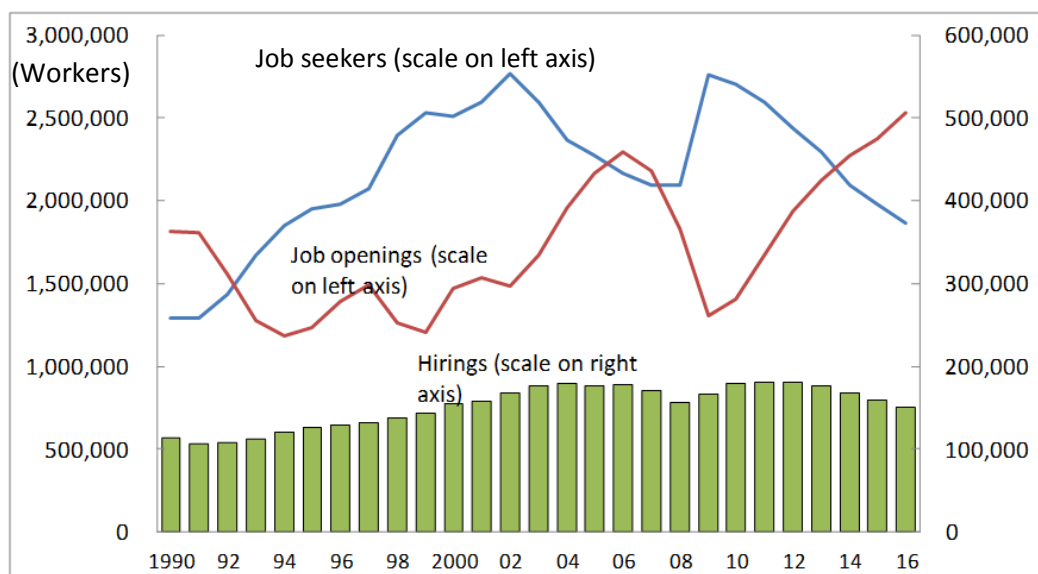
Figure 1-2: Job openings-to-applicants ratio is increasing



Source: Ministry of Health, Labor, and Welfare, State of Regular-Employment Matching (Statistics on Employment Stabilization Services)

If we decompose that ratio into the number of job openings and the number of job seekers, we get a graph like the one in Figure 1-3. As the figure shows, companies' job openings have clearly increased, reflecting the economic recovery attributed to Abenomics. However, there is a long-term decline in the number of job seekers. Consequently, the number of hirings has not increased despite the labor shortage.

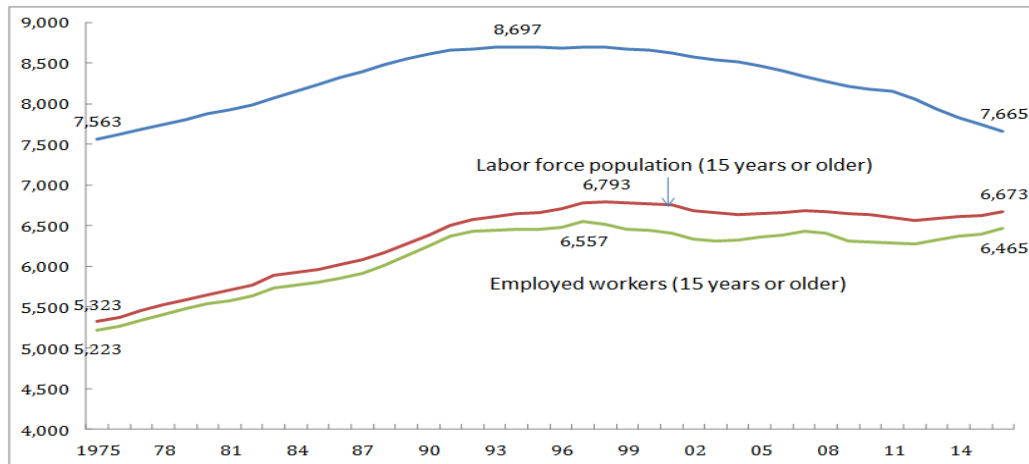
Figure 1-3: Number of job openings, job seekers, and hirings



Source: Ministry of Health, Labor, and Welfare, State of Regular-Employment Matching (Statistics on Employment Stabilization Services)

The long-term decline in the number of job seekers is partly the result of population decline in Japan, particularly a decline in the country's working age population. Figure 2 shows long-term population trends. Japan's working age population peaked in 1997 and has already declined by more than 10 million people. Despite this decline, the number of employed workers has remained roughly the same. The reasons for this are an increase in the employment rate and an increase in the labor force participation rate.

Figure 2: Working age population, labor force population, and number of employed workers



Source: Ministry of Internal Affairs and Communications Statistics Bureau, Labor Force Survey

Table 1 shows estimates of Japan's future population, and indicates that further significant declines in the working age population and in the labor force population are expected. Anticipated responses include not only raising the retirement age and the labor force participation rate, but also increasing women's labor force participation rate and making it easier for them to build their careers. However, what does the reality look like? Also, if an increase in the number of female workers leads to a decrease in the birth rate, then the number of children will decline further. Avoiding this problem requires support for maintaining a balance between working and having children. But, what does such support actually look like? We will consider these questions.

Table 1: Future projected population by age category (unit: 1,000 people)

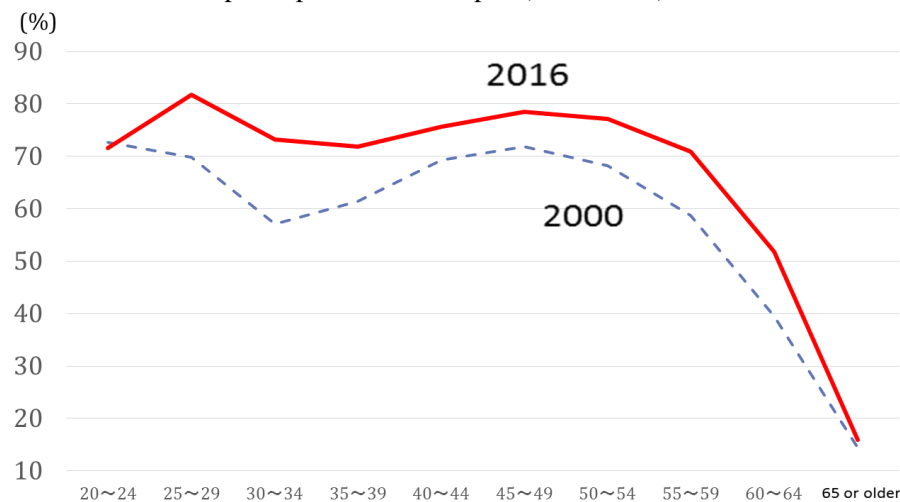
	Actual			Projected (2017)			
	1980	2000	2015	2030	2040	2050	2060
Total	117,060	126,926	127,095	119,125	110,919	101,923	92,840
< 15	27,507	18,472	15,945	13,212	11,936	10,767	9,508
15-19	8,272	7,488	6,054	5,038	4,351	4,020	3,619
20-64	70,563	78,731	71,227	63,716	55,426	48,730	44,309
65-74	6,988	13,007	17,546	14,275	16,814	14,235	11,536
75 ≤	3,660	8,999	16,322	22,884	22,392	24,170	23,866

Source: Ministry of Internal Affairs and Communications Statistics Bureau, Estimated Population; National Institute of Population and Social Security Research, Estimated Future Population of Japan

## II. Women's Labor Force Participation Rate in Japan

The labor force participation rate for different age groups in Japan used to be described by an M-shaped curve. As Figure 3 shows, in the year 2000, women's labor force participation rate dips for 30- to 34-year-olds as many of them got married and had children. This results in the M-shaped curve. However, recent years have seen a significant overall increase in women's labor force participation rate and a smaller dip for that age range.

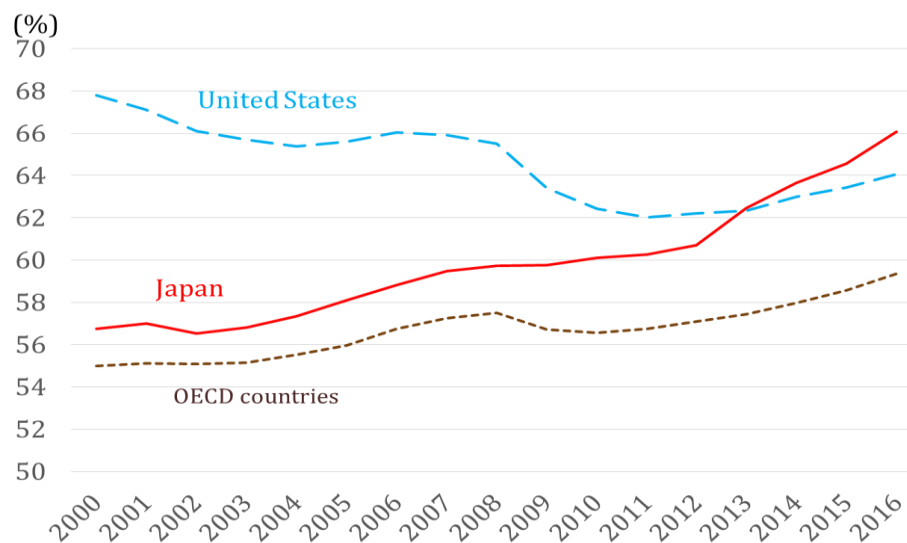
Figure 3: Women's labor force participation rate in Japan (2000, 2016)



Source: Ministry of Internal Affairs and Communications Statistics Bureau, Labor Force Survey

Figure 4-1 shows the trends in the employment rate of working age women in Japan, the United States, and the OECD countries. The rate of increase for Japan is high, and women's employment rate in Japan exceeds that in the United States.

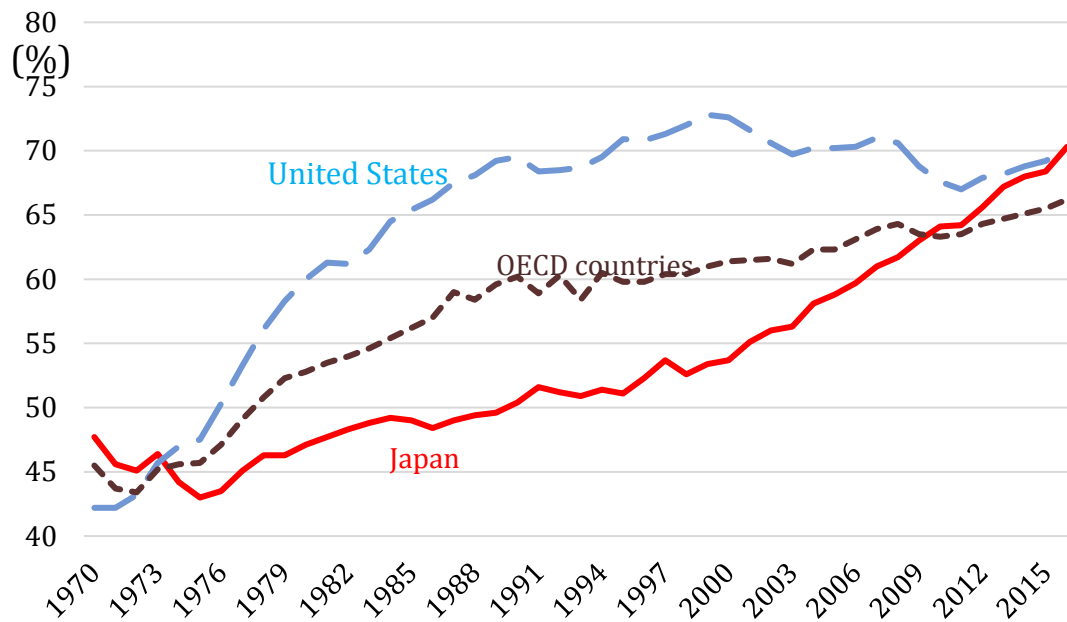
Figure 4-1: Women's employment rates in Japan, the United States, and the OECD countries (15-64 years)



Source: OECD.Stat

Figure 4-2 shows the trends in the employment rate for 30- to 34-year-old women. We see a rapid increase in Japanese women's employment rate in this age group, too.

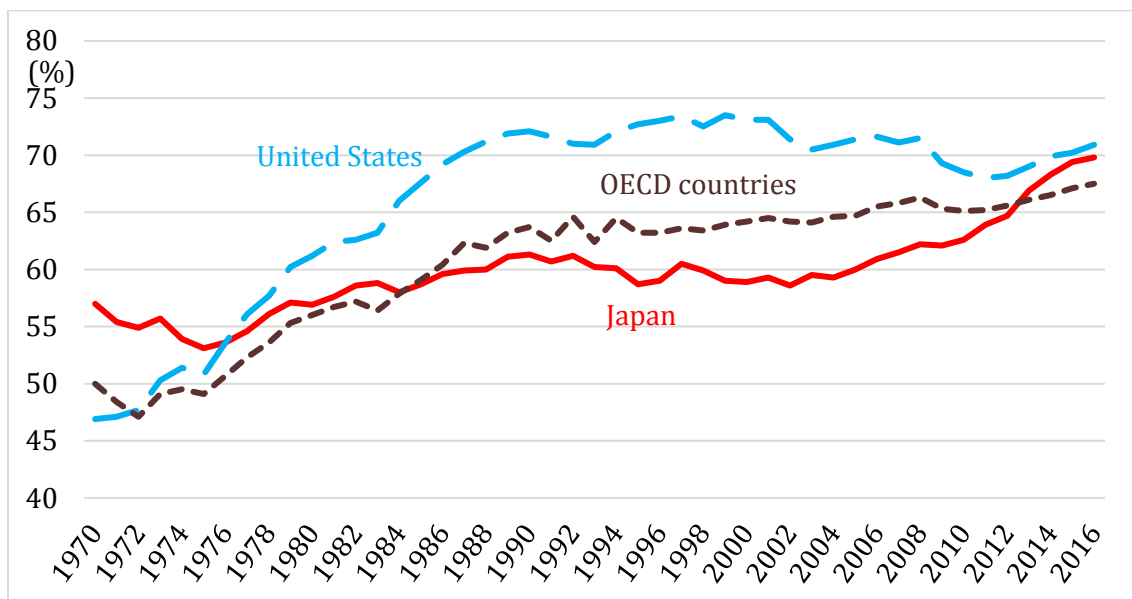
Figure 4-2: Women's employment rates in Japan, the United States, and the OECD countries (30-34 years);



Source: OECD.Stat

Figure 4-3 shows the employment rate for 35- to 39-year-old women. This age group also has a rapid increase in their employment rate.

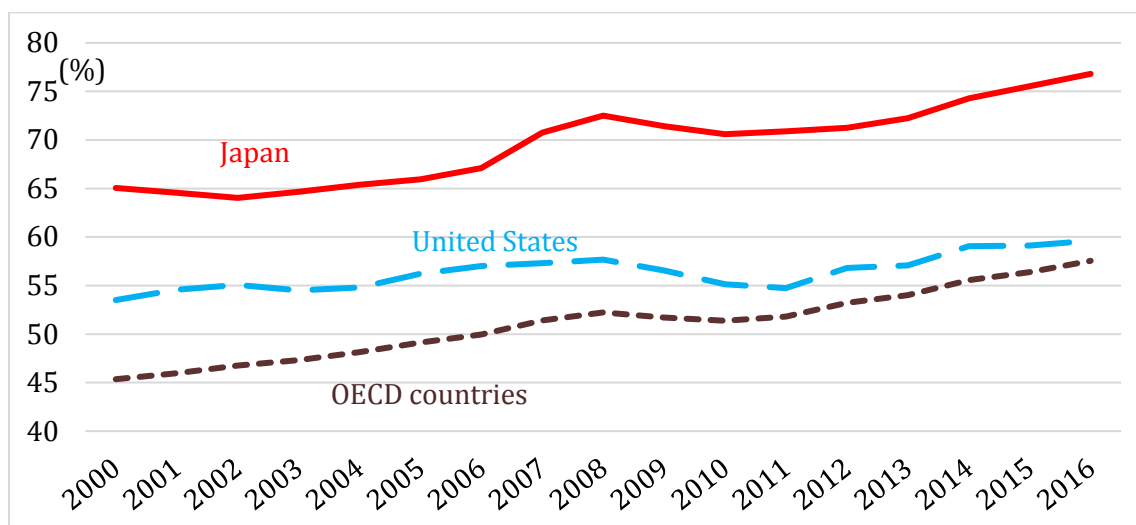
Figure 4-3: Women's employment rates in Japan, the United States, and the OECD countries (35-39 years)



Source: OECD.Stat

Figure 5 shows the employment rate for older men (60 to 64 years old). The employment rate of older Japanese men was already highest in the world, but has rapidly increased further in recent years, reflecting economic growth and a legal amendment requiring companies to guarantee employment for their employees until they reach the age when pension payments begin.

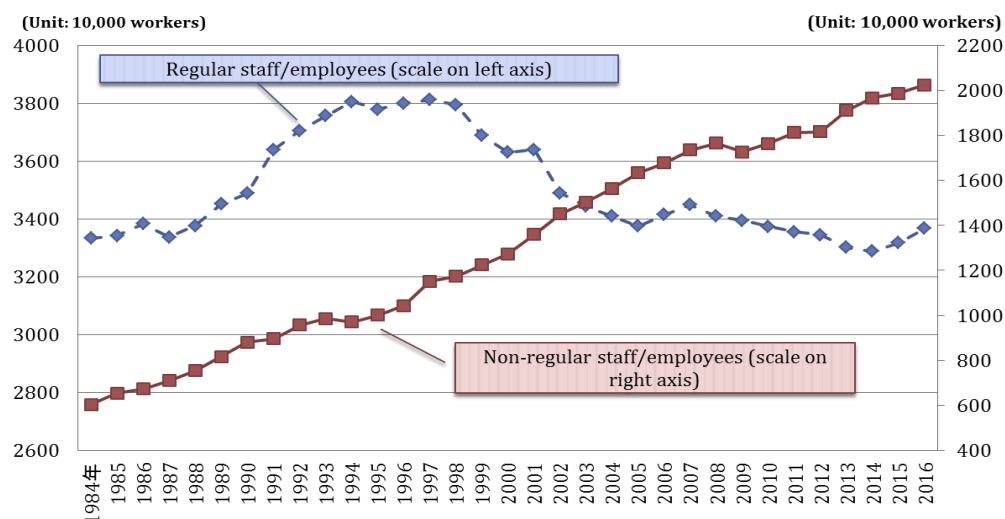
Figure 5: Older men's employment rate for Japan, the United States, and the OECD countries (60-64 years)



Source: OECD.Stat

The increase in the employment rate in Japan, however, is largely attributed to an increase in the number of non-regular workers such as part-timers, contract workers, and temporary workers. Figure 6 shows changes in the number of regular workers and non-regular workers. The number of regular workers peaked in 1997 and has fallen by approximately five million to its current level. In contrast, the number of non-regular workers has constantly increased, and these workers currently account for about 40 percent of all employees.

Figure 6: Number of regular and non-regular workers in Japan

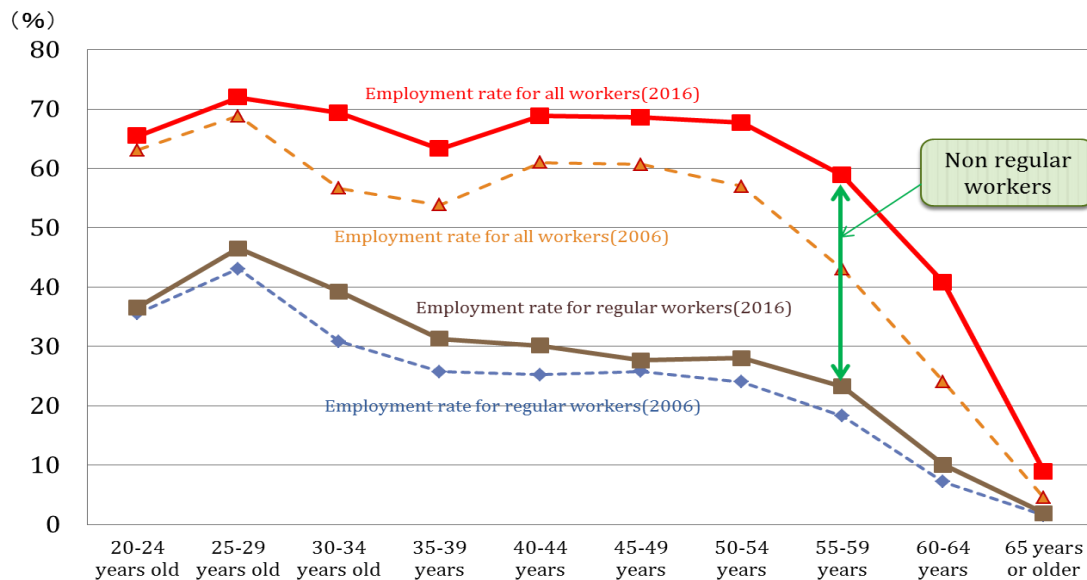


Source: Labor Force Survey: Special Survey (for 2001 and earlier), Labor Force Survey: Detailed Data (for 2002 and later)

Note: Data as of February are used for 2001 and earlier; the annual average is used for 2002 and later.

Figure 7 shows the employment rate for workers of all types and regular workers. While the employment rate for workers of all types substantially increased, the increase in the employment rate for regular workers was small. The difference between these employment rates is the employment rate for non-regular workers, which increased significantly as shown in the graph.

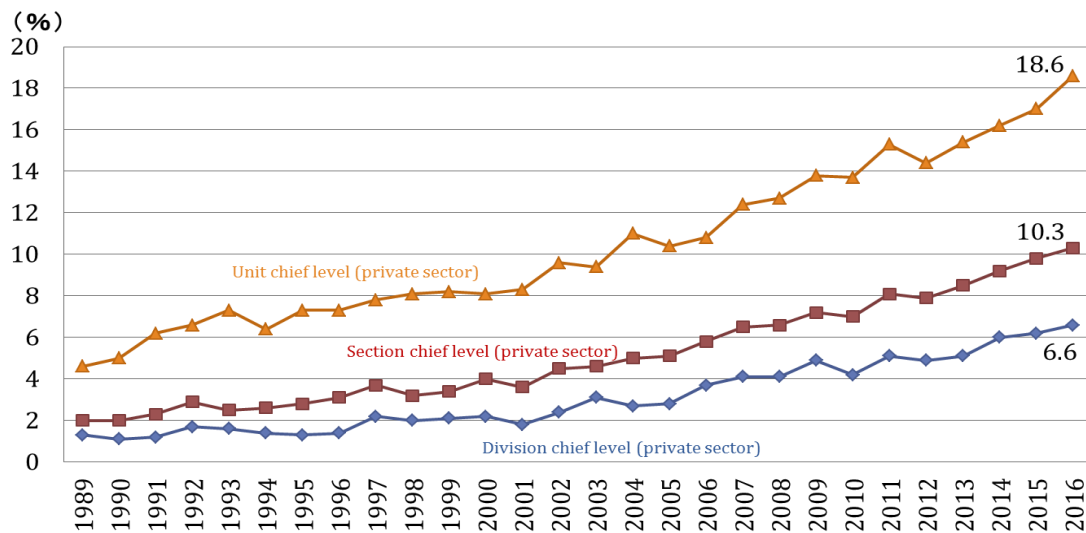
Figure 7: Women's employment rate for workers of all types and regular workers (2006, 2016)



Source: Ministry of Internal Affairs and Communications, Labor Force Survey: Detailed Data

As Figure 8 shows, while the number of women in management positions has increased in Japan in recent years, that number is still low.

Figure 8: Share of women in management positions



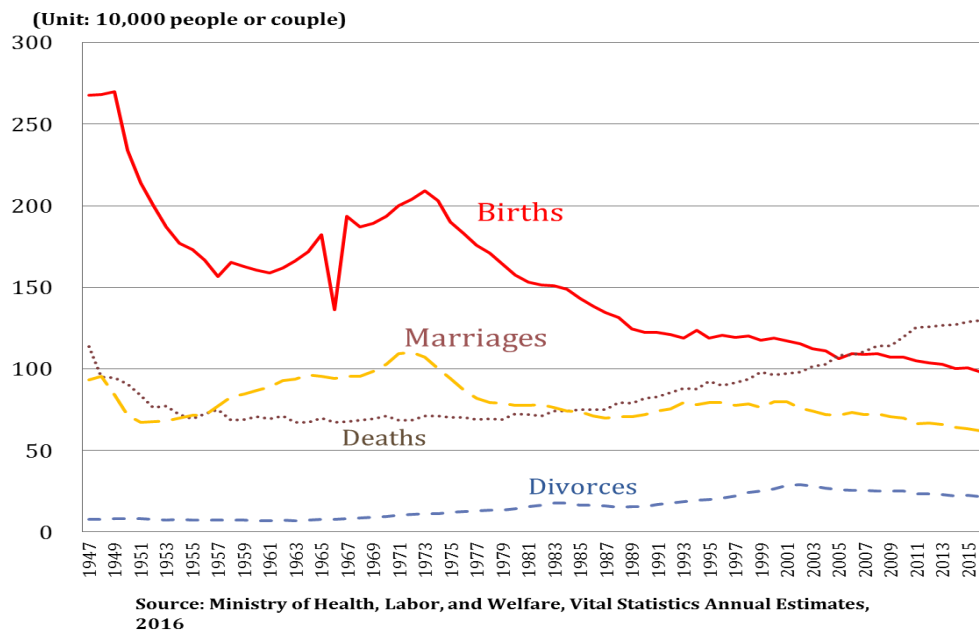
Source: Cabinet Office, Gender Equality Bureau White Paper; Ministry of Health, Labor, and Welfare, Basic Statistical Survey of Wage Structures



### III. Trends in the Birth Rate

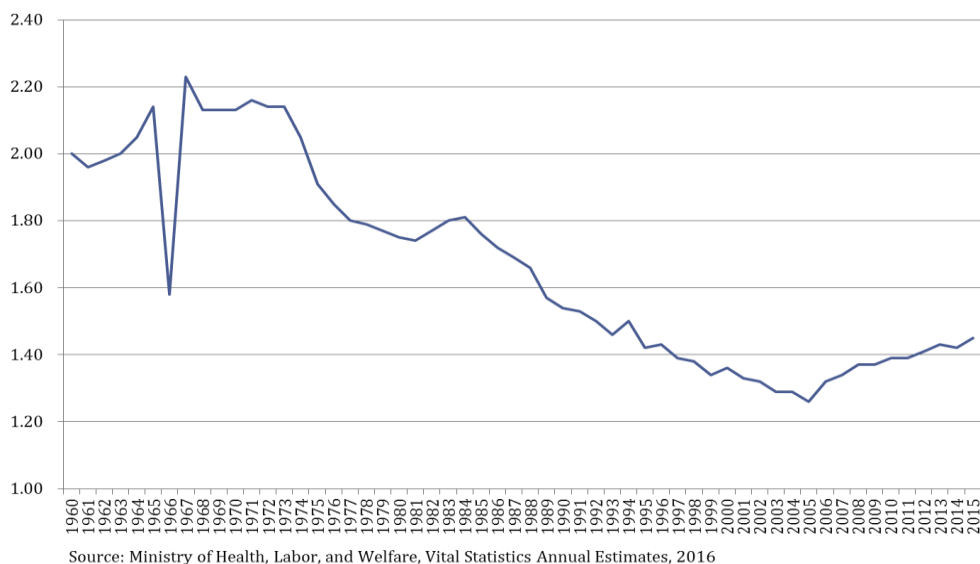
As shown in Figure 9, Japan's population began to decline as a result of a decrease in the number of births and an increase in the number of deaths. Also, the number of marriages has decreased, and the number of divorces has increased. However, the total fertility rate started to gradually rise after bottoming out in 2005. The decline in the number of births is attributable to a decreasing number of women in their twenties and thirties.

Figure 9: Number of births, deaths, marriages, and divorces in Japan



The birth rate can be expressed with the marriage rate (the share of married women among women of relevant ages) multiplied by the birth rate of married women (the number of children born per married woman).

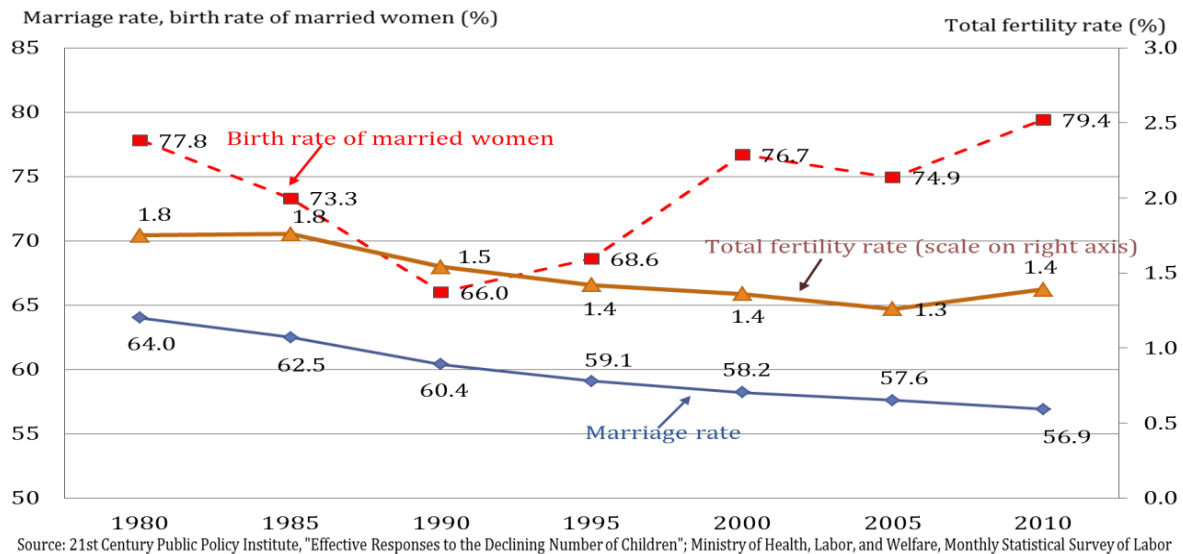
Figure 10: Japan's total fertility rate



$$\begin{aligned}\text{Birth rate} &= (\text{married women} / \text{women}) \times (\text{children born} / \text{married women}) \\ &= \text{marriage rate} \times \text{birth rate of married women}\end{aligned}$$

Figure 11 shows these rates. There was a substantial decline in the birth rate of married women, but it has risen in recent years. The marriage rate has kept falling. The growing number of unmarried people has significantly contributed to the declining number of children.

Figure 11: Marriage rate, birth rate of married women, and total fertility rate in Japan



#### IV. Marriage among Regular and Non-regular Workers

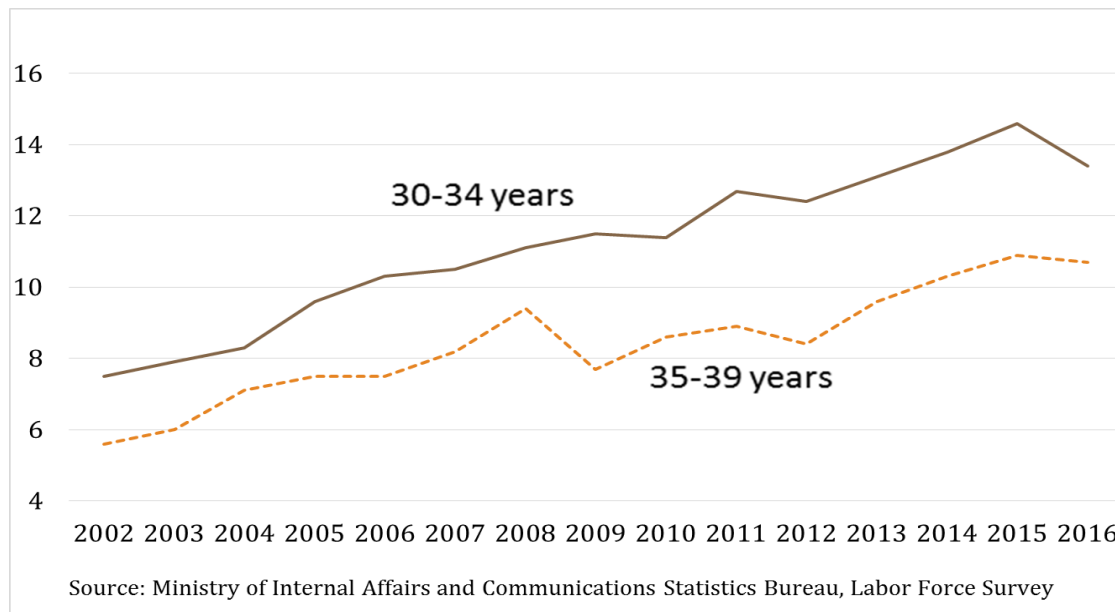
Figure 12 shows marriage rates for different pre-marriage employment types (regular employment and non-regular employment). Among men, the marriage rate is clearly lower for part-timers than for regular workers. In other words, non-regular workers have unstable employment and low incomes, so many of them are unable to get married even if they want to. In contrast, among women, the marriage rate is higher for part-timers than for regular workers.

Figure 12: Marriage rates among regular and non-regular workers



As Figure 13 shows, the share of non-regular workers among male workers has increased in recent years, which has contributed to the decline in the marriage rate.

Figure 13: Share of non-regular workers among male workers (%)



### Reducing the Cost of Raising Children for Women

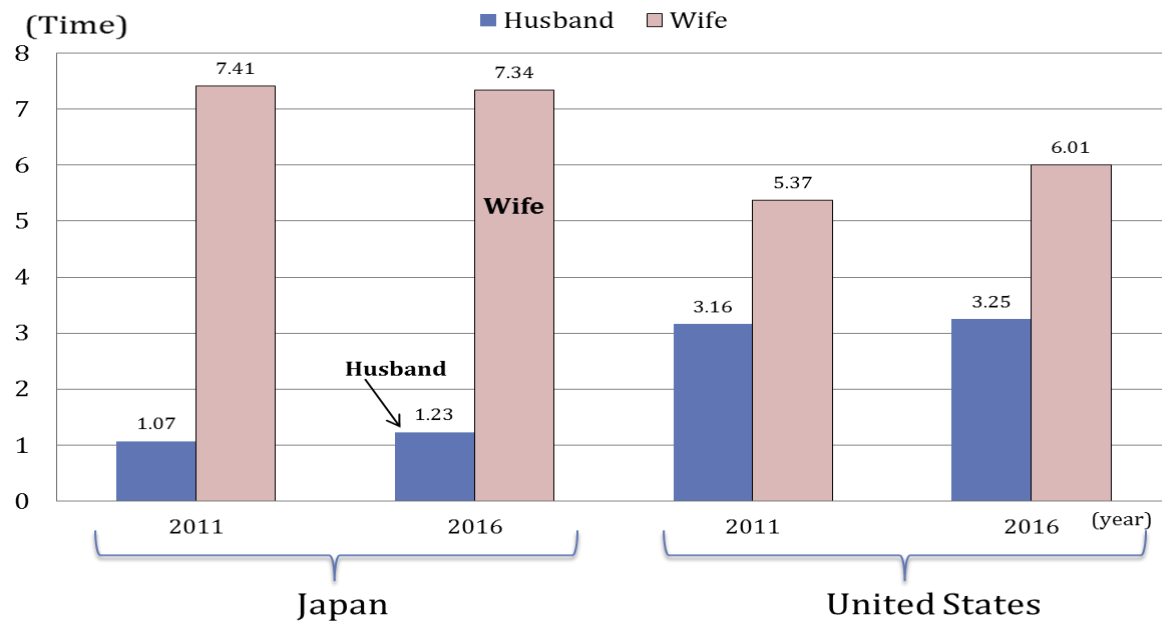
Reducing the cost of raising children for women requires reducing women's time spent for housework and child-rearing at home, the workplace, and other places in society. Various measures are needed to achieve such cost reductions.

1. Cooperation from the husband and parents in housework and child-rearing
2. Expansion of child care services
3. Guaranteed continued employment and income support through companies' child care leave programs
4. Reduction of Long Working Hours

### V. Time Spent for Housework and Child-Rearing among Men and the Rate of Continued Employment and Birth Rate of Women

Figure 14 shows a comparison between Japanese households and American households in terms of the time spent for housework-related activities by the husband and wife with a child aged six years or younger. In Japan, the difference between men and women remains large although the husband's time spent for housework slightly increased and the wife's time spent for housework slightly decreased. We see that most of housework and child-rearing is done by the wife. The degree of gender-role distinction is still high in Japan. In comparison, in the United States, the difference between men and women in terms of time spent for housework is smaller. However, a concerning trend is that the wife's housework time has increased in recent years.

Figure 14: Time spent for housework-related activities for men and women in Japan and the United States

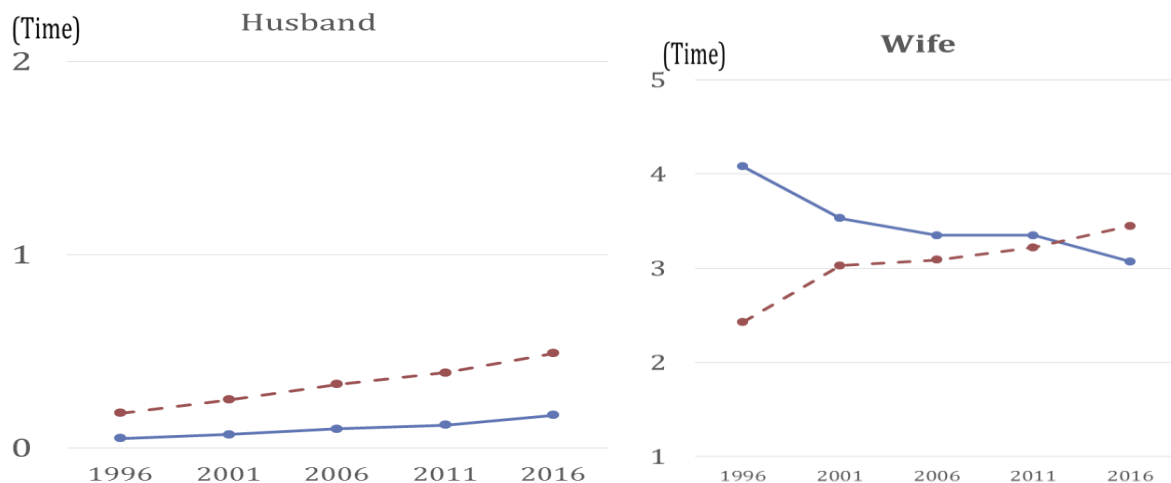


Source: Ministry of Internal Affairs and Communications, Basic Survey on Living, 2016: Results Related to How Time is Spent

Note: Housework-related time: time spent during a week for housework, family members' care, child-rearing, and shopping (Japan). Housework-related time: time spent for housework, shopping (products and services), and family members' care (including child-rearing) (United States; U.S. Bureau of Labor Statistics (BLS), "American Time Use Survey---2016 Results")

Figure 15 shows trends in the husband's and wife's time spent for housework and child-rearing per day in Japan. The husband's time spent for housework has increased by small amounts, and the wife's housework time has decreased. Time spent for child-rearing has increased for both the husband and wife.

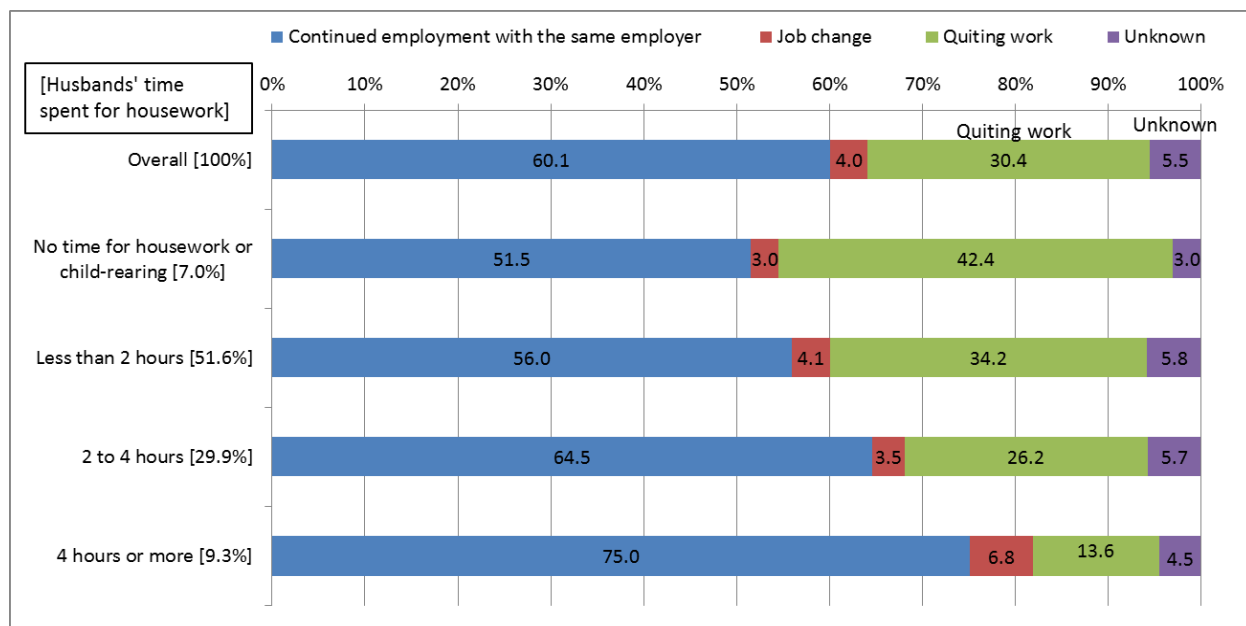
Figure 15: Husband's and wife's time spent for housework and child-rearing in Japan (husband and wife with a child aged six years or younger)



Source: Ministry of Internal Affairs and Communications, Basic Survey on Living, 2016: Summary of Results Related to How Time is Spent

Do the rate of continued employment and the birth rate among married women vary depending on the time spent for child-rearing by their husbands? Figure 16 shows that the more time the husband spends for housework, the higher the likelihood of continued employment of the wife after the birth of their first child.

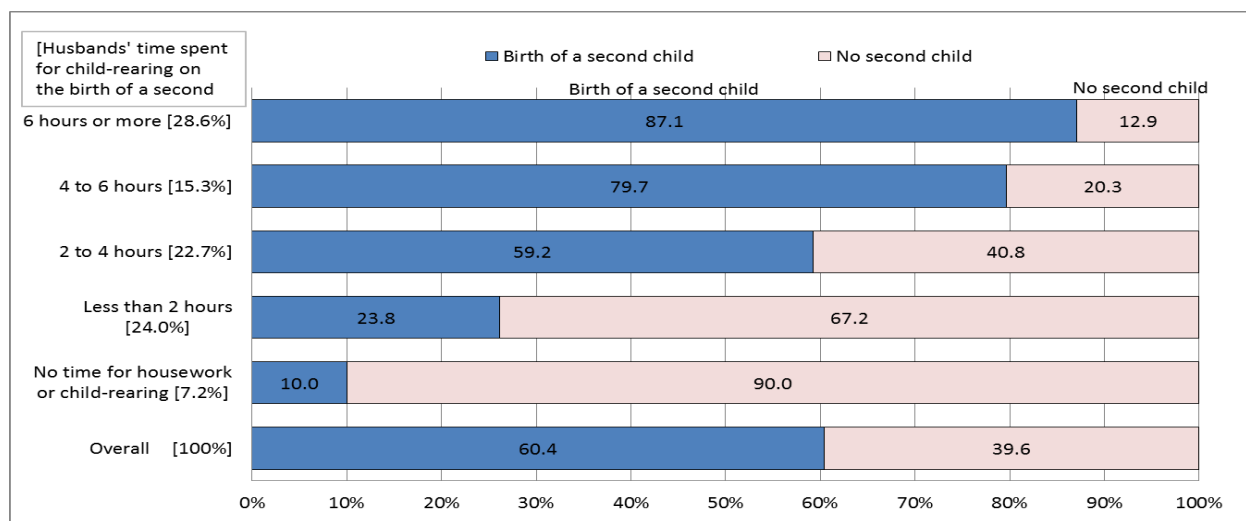
Figure 16: Husbands' time spent for housework and the rate of continued employment of wives after the birth of their first child



Source: Cabinet Office, Report on Work-Life Balance, 2016

Figure 17 shows that the more time the husband spends for housework, the higher the likelihood of having a second child.

Figure 17: Effect of husbands' time spent for child-rearing on the birth of a second child

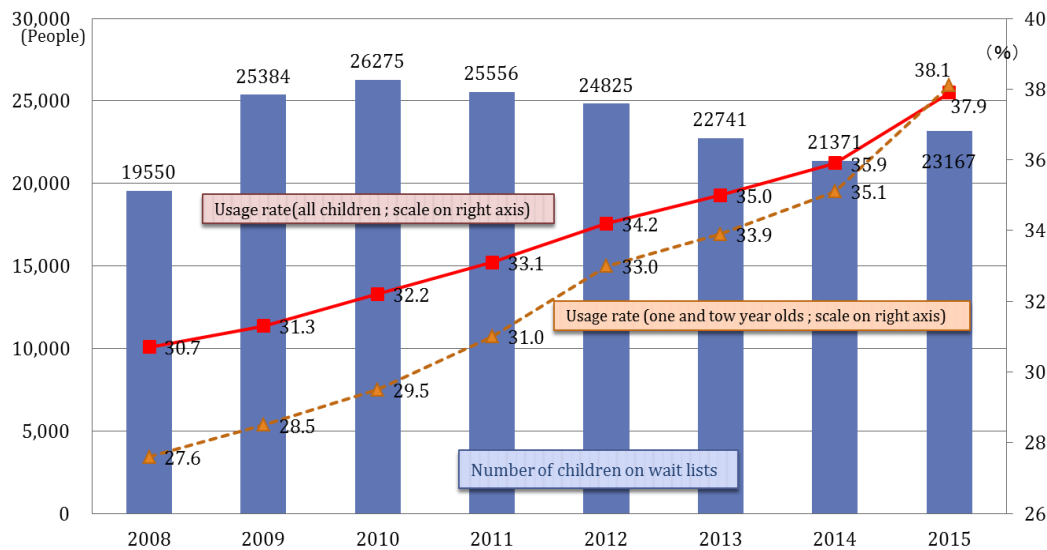


Source: Ministry of Health, Labor, and Welfare, Twenty-First Century Longitudinal Study

## VI. Child Care Service and the Rate of Continued Employment and Birth Rate of Women

Although the number of children has been declining, the number of children on waiting lists for nursery schools remains high because of an increasing number of working mothers and thus an increasing number of households needing child care. As Figure 18 shows, the share of families using nursery schools has increased. In particular, the share of families sending their one-year-olds and/or two-year-olds to nursery schools has rapidly increased, which has raised the need for many nursery teachers. The increased demand for child care service has not been met despite the fact that local governments in mainly large cities have increased the number of nursery schools. For women with children to continue working, not only support related to child-rearing from their husbands and parents, but also expanded public child care service is needed.

Figure 18: Increased number of nursery facilities and children on wait lists

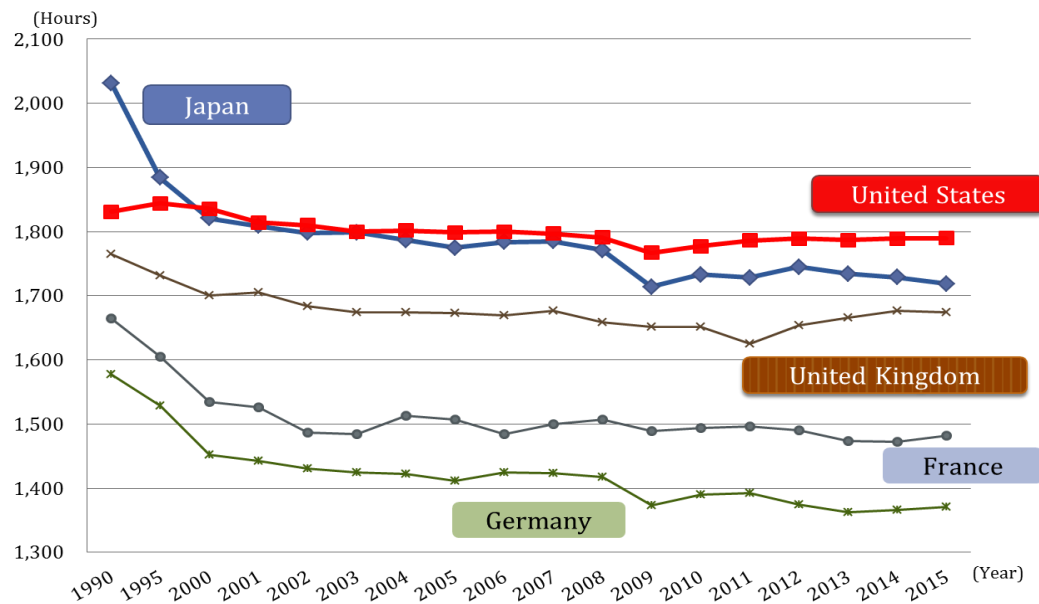


Source: Ministry of Health, Labor, and Welfare, "Summary of the Situation Involving Nursery Schools (April 1, 2017)"

## VII. Companies' Child Care Leave Programs and the Rate of Continued Employment and the Birth Rate among Women

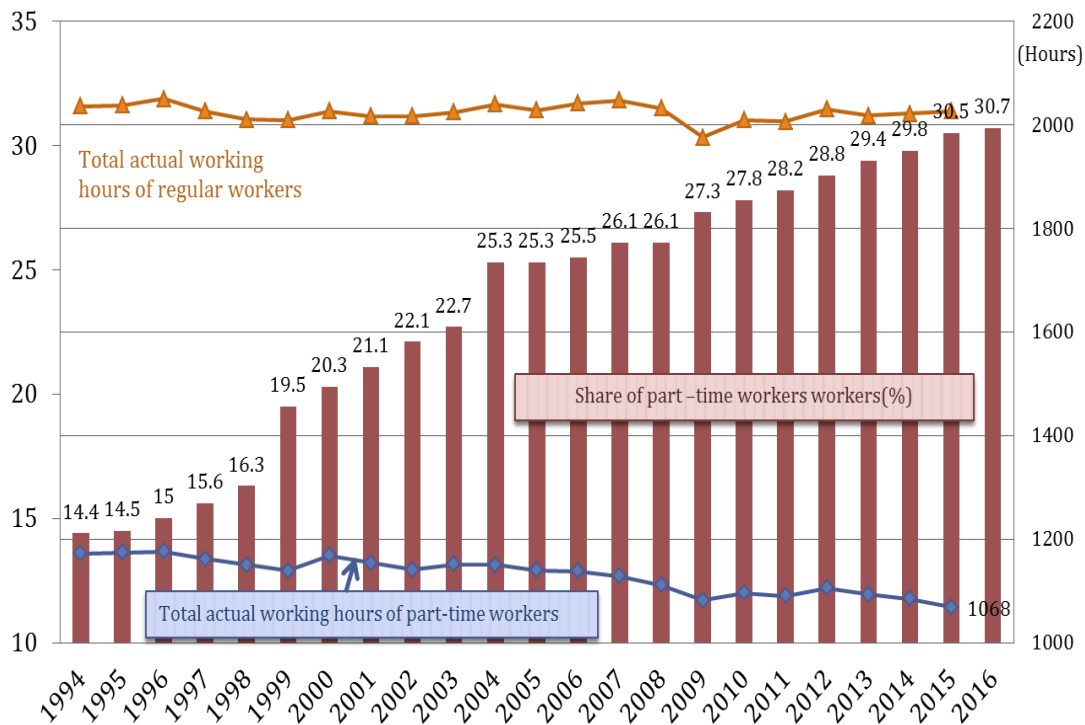
Japanese companies have long working hours. In Figure 19, it seems that working hours in Japan have decreased in recent years and have become shorter than working hours in the United States. The reason for this is an increase in the number of part-time workers.

Figure 19: Average total actual working hours for different countries



Source: Japan Institute for Labor Policy and Training, International Labor Comparison Data Book, 2015  
 Figure 20 shows annual total actual working hours for full-time and part-time workers. Working hours continue to be long for regular workers. In short, average working hours just appear to have become shorter because of an increase in the share of part-time workers.

Figure 20: Working hours in Japan for different employment types and the rising share of part-timers



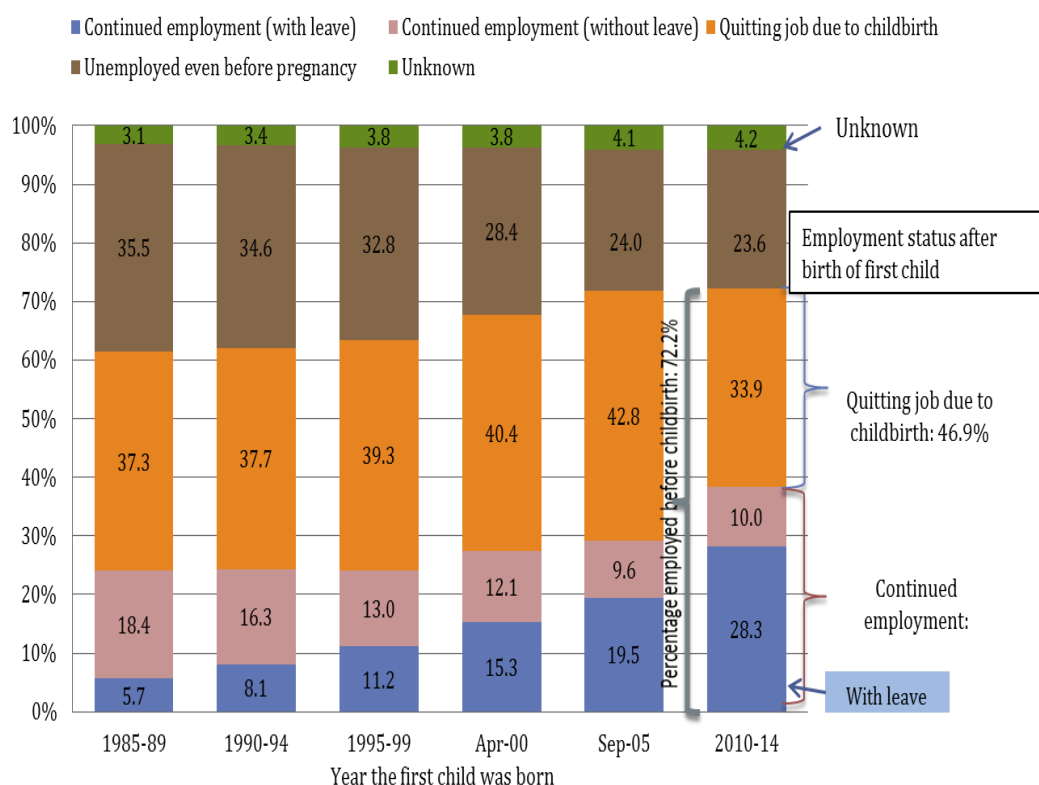
Source: Ministry of Health, Labor, and Welfare, Monthly Statistical Survey of Labor  
 Note: Offices with five workers or more

When women with a child try to continue working, what hinders them from doing so is long working hours. For this reason, the government has amended laws to shorten working hours and promote the introduction of child care leave programs.

The Child Care Leave Act was enacted in 1992 and has evolved, through several amendments, into today's Child Care and Family Care Leave Act, which states that workers can take child care leave by requesting it until the child reaches the age of one year, and that in the absence of available nursery schools or other child care facilities or in other certain cases, workers can take child care leave until the child reaches the age of one year and six months. Therefore, when a worker requests child care leave, her company must recognize her right to resume working one year or one and a half years later. Although the worker does not get paid during her leave, she receives an allowance from her employment insurance, which equals 66 percent of her pre-leave salary. Also, although the law says that men and women are equally eligible for child care leave, in reality, not many men utilize it.

Figure 21 shows changes in women's employment status after the birth of their first child. The number of women who did not have a job before their pregnancy has decreased. Also, particularly in recent years, the number of women who quit their job after childbirth dropped markedly. In contrast, the number of women who utilize child care leave and keep their employment has increased.

Figure 21: Women's employment status after the birth of their first child



Notes:

1. Graph prepared based on the 15th Basic Survey of Childbirth Trends (Couples Survey, 2015) conducted by the National Institute of Population and Social Security Research.
2. Data on couples where both spouses have no previous marriage and the first child's age is one year to 14 years.
3. Employment status before and after childbirth:



Continued employment (with leave): employed when pregnancy is confirmed, child care leave taken, employed when the child becomes one year old

Continued employment (without leave): employed when pregnancy is confirmed, child care leave not taken, employed when the child becomes one year old

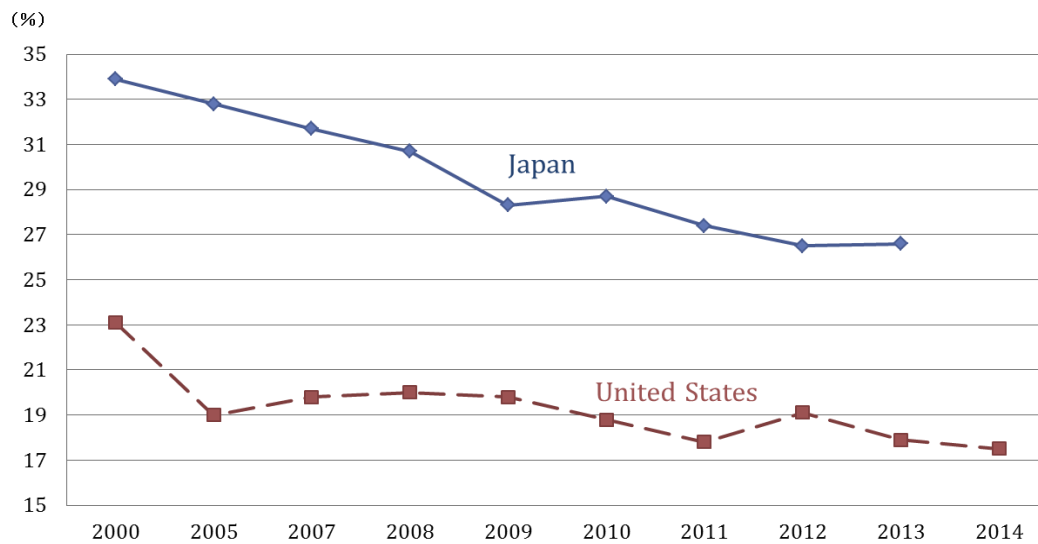
Quitting job due to childbirth: employed when pregnancy is confirmed, unemployed when the child becomes one year old

Unemployed even before pregnancy: unemployed when pregnancy is confirmed, unemployed when the child becomes one year old

## VIII. Wage Gap between Men and Women and Years Worked

Figure 22 shows trends in the wage gap between men and women based on full-time workers' median incomes. As the graph shows, the wage gap in Japan has gradually narrowed, but is still large.

Figure 22: Wage gap between men and women based on full-time workers' median incomes



Source: OECD database

In Japan, as shown in Table 2, there is a large difference between men and women in terms of average years worked. Under seniority-based wage systems, the wage gap tends to be large.

Table 2: Wage gap between men and women and years worked (2015)

	Wage gap	Years worked		
		Male	Female	Gap
	(Male=100)	(Years)	(Years)	(Male=100)
Japan	72.2	13.5	9.4	69.6
United States	81.1	4.3	4.0	93.0
United Kingdom	82.3	8.3	7.8	94.9
Germany	81.3	11.1	10.2	91.7
France	84.5	11.3	11.5	101.5
Sweden	88.0	8.8	9.1	103.8
South Korea	67.6	7.1	4.6	64.8

Source: Japan: Ministry of Health, Labor, and Welfare (February 2016) Basic Statistical Survey of Wage Structures, 2015

United States: U.S. Department of Labor (March 2016) Labor Force Statistics from the CPS; U.S. Department of Labor (September 2016) Employee Tenure in 2016

United Kingdom (wages): ONS (October 2016) Annual Survey of Hours and Earnings 2016, revised

Germany (wages): Federal Statistical Office of Germany (October 2016) Statistisches Jahrbuch 2016

France (wages): Eurostat (October 2016) Gender Pay Gap in Unadjusted Form

Sweden (wages): Statistics Sweden (June 2016) Salary Structures, Whole Economy

Europe (years worked): OECD database (<http://stats.oecd.org/>, as of January 2017)

South Korea: Ministry of Employment and Labor (<http://www.moel.go.kr/>, as of January 2017)

Notes:

1. These values are in principle calculated based on wages for all industries. The definition of workers may be different for some countries. For Japan, data on regular workers' specified monthly salaries are used.
2. The wage gap for France is for 2014.

In Japan today, men have increased their time spent for housework and child-rearing, more and more companies have introduced a child care leave system, and the government has expanded child care services. As a result, it has become easier for women to maintain balance between work and child-rearing. However, the speed of these changes is too slow and will need to be accelerated. Also, companies need, more than ever, to reexamine their long working hours, correct the wage gap between regular and non-regular workers, and increase productivity. They need to take these actions without making distinctions between men and women. Relevant legislative bills are currently being discussed. The government must soon enact them and implement various policy measures.