Employment Changes Brought On by the Novel Coronavirus Pandemic

(Economy and Society Study Group Commentary No. 9)

Kawakami Atsushi

Associate Professor
Department of Economics, Toyo University

1. Changes in the Total Unemployment Rate due to the Declaration of the State of Emergency

The Novel Coronavirus pandemic that has spread since 2020 and the measures taken to prevent it have not only changed our lifestyles but also have had a significant impact on economic activities and the employment environment. This article will discuss the challenges to employment during the pandemic by presenting macro-level labor statistics to provide an overview of the changes in employment indicators during this period.

Figure 1 summarizes the change in the total unemployment rate with 2019 as the baseline. This figure shows that the impact of the pandemic on unemployment had not yet been observed from the end of January 2020 to February 2020, the period of the coronavirus outbreak case on the Diamond Princess cruise ship,[1] which triggered the strong awareness of the Novel Coronavirus in Japan. The unemployment rate started to rise from April 2020, which was when the first declaration of a State of Emergency was issued. This fact can be interpreted to mean that the reduction in economic activity due to the state of emergency declared by the government had a direct impact on employment. After that, deterioration of the employment environment continued through 2020, and although there was a decline in the total unemployment rate when the pandemic situation improved in the beginning of 2021, it rose again during the second and third emergency declarations (January and April 2021). These facts suggest that the contraction in economic activity due to declaration of the state of emergency became a barrier to the issuance of the declaration, and that the government was faced with a trade-off between preventing infection and maintaining the economy and employment.

On the other hand, if we compare the worsening of the total unemployment rate in the pandemic with other economic crises, we can see that the impact was limited. Figure 2 shows the change in the total unemployment rate, which is the result of Figure 1 aggregated back to 2006. During the financial crisis in 2008 and 2009, there was an increase in the total unemployment rate, and the magnitude of the impact of the crisis was shown to be greater than that of the pandemic. Note that this figure is based on the year-on-year difference (difference from the same month the previous

[1] See the National Institute of Infectious Diseases website (https://www.niid.go.jp/niid/ja/typhi-m/iasr-reference/2523-related-articles/related-articles-485/9755-485r02. html).

year). The figure shows that the level of the total unemployment rate averaged 2.9% per year in 2020 and 5.6% in 2009, the year of the financial crisis.

2. Employment Adjustment in the Pandemic

We would like to confirm how the rising unemployment since 2020 has occurred by looking at the changes in the reasons for leaving previous jobs. Figure 3 shows the year-on-year difference in the number of unemployed people[2] who left their jobs within a year[3] (difference between 2021 and 2019), by breakdown of the reasons for leaving their previous jobs, using the "Labour Force Survey (Detailed Tabulation)."

Although the increase in overall unemployment does not differ from that of the total unemployment rate shown in Figure 1, we can see that a large number of job separations were caused by corporate factors. In April 2020 when the first state of emergency was declared, there was large number of unemployment due to "company bankruptcy and business closure," a trend that had an impact until the April-June 2021 period in comparison with 2019. In addition, a high percentage of those who lost their jobs due to "layoff or recommended early retirement" or due to "business slump or uncertainty" remained unemployed until the July-September 2021 period, suggesting that the pandemic caused job cuts and prolonged unemployment.

On the other hand, the number of individuals who became unemployed due to "retirement or expiration of employment contract" increased from the July-September 2021 period, which was not observed in the April-June 2021 period when the first state of emergency was declared. This circumstance indicates that even after the declaration of the state of emergency was lifted, companies were forced to downsize their businesses, which led to job separation for employees with fixed-term employment contracts. The impact of this trend continued to be seen, with a high percentage of the unemployed remaining after the April-June 2021 period.

From Figure 1, it is also noteworthy that although the overall number of unemployed persons decreased in the July-September 2021 period, the reason for this decrease was a decline in unemployment due to "looking for a job with better conditions." This tendency could be interpreted as an improvement in conditions at the place of employment, but it could also be seen as an increase in the risk of leaving the workforce, as people are unable to secure better job opportunities after leaving. At the same time, unemployment due to other corporate performance factors has not decreased, and the employment environment cannot be said to have improved during this period.

We have already discussed unemployment due to employment adjustment by companies. However, employment adjustment is not necessarily limited to reducing the number of employees by encouraging them to resign or by the expiration of employment contracts; it may also include

[2] It should be noted that since the data cover unemployment within a one-year period, the aggregate figures particularly for 2020 include those in long-term unemployment of those who lost their jobs in 2019.
[3] For the fully unemployed, the job-seeking period is the survey period in the "Labour Force Survey" (the last week of the month), while for the unemployed, the period is extended to one month including the survey period.

reduction of personnel costs by cutting working hours and salaries. In order to confirm this point, Figure 4-1 shows the percentage of companies conducting employment adjustment in all industries based on data from the Survey on Labour Economy Trend conducted by the Ministry of Health, Labour and Welfare, and Figure 4-2 shows the rate in the lodging industry and the food and beverage service industry, which are thought to have been particularly affected by the pandemic.

The percentage of companies conducting employment adjustment in general was high from April to September 2020 but has been on a declining trend since then. The level in the most recent July-September 2021 period is lower than the same period in 2019 (Figure 4-1). On the other hand, in the lodging industry and the food and beverage service industry, employment adjustment has been carried out since the January-March 2020 period, before the first declaration of the state of emergency, and has remained at a level higher than that of the same period of 2019 since 2021 (Figure 4-2). Looking at the adjustment method for personnel reduction related to the increase in unemployment we see that "solicitation of voluntary retirement or dismissal" has not increased after the outbreak of the pandemic. However, the reduction of so-called non-regular employment such as "reduction of temporary workers" and "suspension of re-signing or dismissal of temporary and part-time workers" has increased. In addition, although it is not a reduction in employment, adjustment through "temporary leave" has been implemented at a high level since the beginning of 2021. This is thought to be due in part to the fact that employment adjustment subsidies cover a portion of the absence allowance for maintaining employment through a temporary leave. The reduction in employment is manifested both as a reduction in the number of employees leaving the labor force and as a reduction in the number of new employees entering the labor force. The "restraint or suspension of new graduate hires" and "reduction or suspension of mid-career hires" have been implemented continuously since 2021, and these adjustments are thought to have an impact on the prolongation of unemployment.

Employment adjustment is also conducted by reducing working hours while maintaining employment. It can be shown that employment adjustment through "substitution of holidays, increase of holidays and vacations such as summer vacation" and "regulation of overtime work" continued while the effects of the first emergency declaration in 2020 remained, but it is also noteworthy that the official working hours were reduced, especially in the lodging and food and beverage service industries.

Figure 5 shows the change in total actual working hours (the sum of official working hours and overtime working hours) compiled from the Monthly Labour Survey by industry. This aggregate shows that working hours in the lodging and food and beverage service industries were significantly reduced after the first declaration of the state of emergency, and that the accommodation industry in particular has maintained a low level since the declaration was lifted in 2020.

3. Mismatch Situation

As we saw in the previous section, the number of unemployed people is shown to have increased through job separation. However, at the same time, it is also possible that the unemployed remain

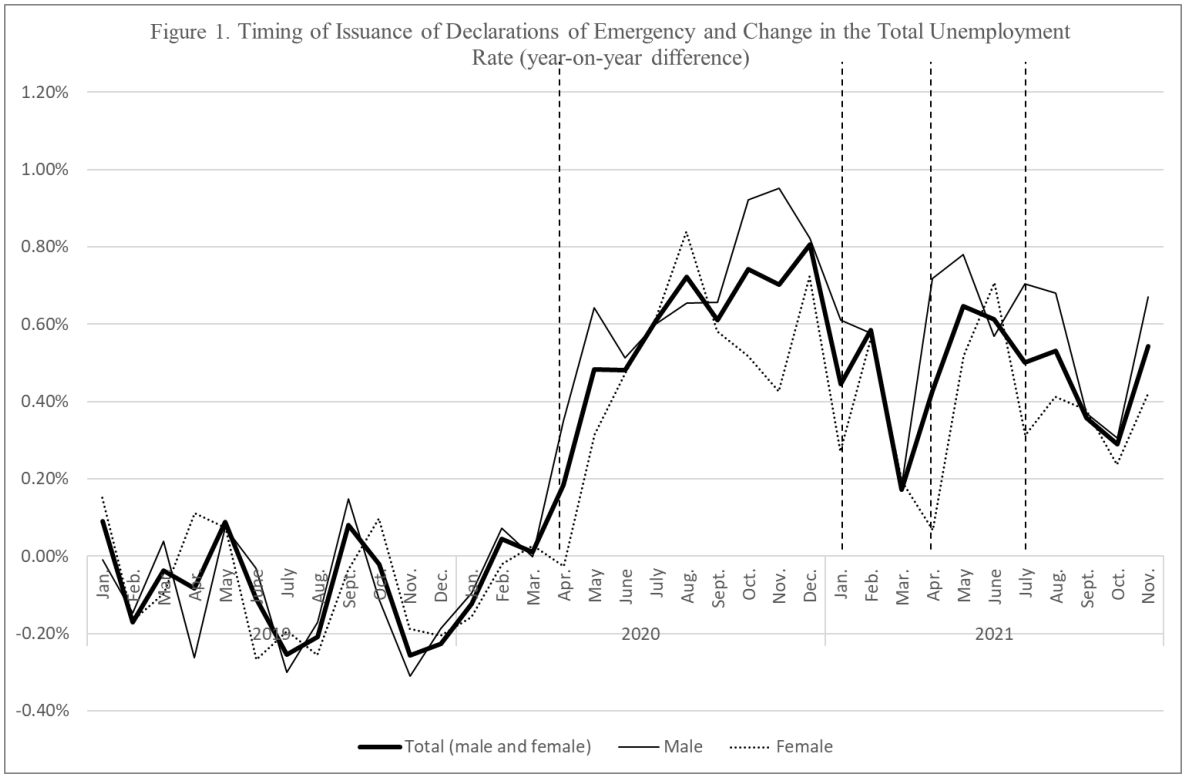
unemployed because they are unable to find the job they want. There are two possible reasons for this: one is that there is a surplus of job seekers, meaning that there are not enough job openings for the number of job seekers, and the other is that there is a mismatch between job seekers and job openings in terms of the compensation. The UV curve[4] in Japan is summarized in Figure 6-1 to illustrate the situation.

The UV curve is plotted using monthly data, with the unemployment rate measured for the unemployed on the vertical axis and the vacancy rate on the horizontal axis, which indicates a situation in which an employee is not available for a job opening. The unemployment rate observed when the numbers of job seekers and job openings match (U=V), which is the period plotted on the (45-degree line diagram in the figure) is considered to be the unemployment rate caused by a mismatch. An unemployment mismatch can also be seen as a shift of the downward sloping curve to the right between U and V.

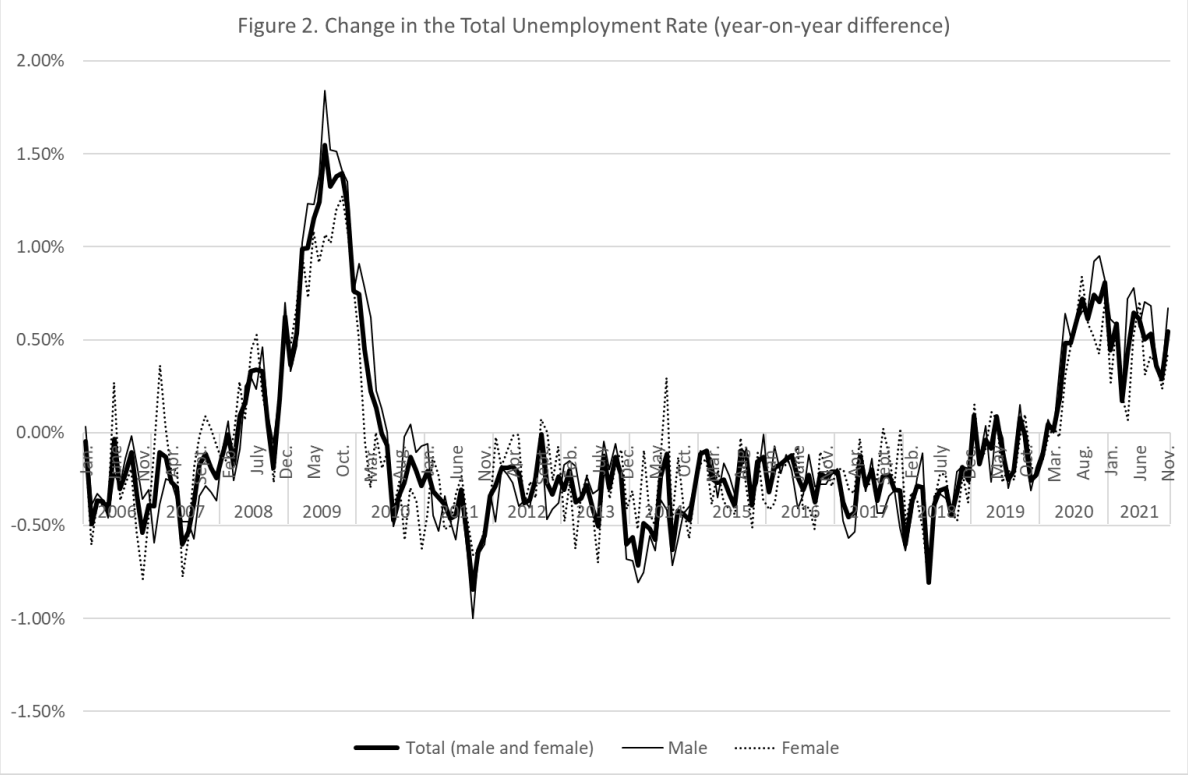
The period plotted to the upper left of the line indicating U=V is the period in which the number of job seekers is greater than the number of job openings, and a labor surplus occurs. Looking at the period of time plotted, it can be said that a serious labor surplus occurred in the early 2000s when the IT or dot-com bubble was in the process of bursting and also during the financial crisis. Since 2010, the employment environment has been improving, and there has been a shift from a shortage of jobs to a labor shortage.

Figure 6-2, which summarizes the UV curve since 2015, shows a labor shortage, which had been ongoing before the pandemic, changed rapidly in 2020 as the supply and demand became tighter. In May 2020 after the first state of emergency was declared, the labor shortage situation was resolved, and the unemployment rate and the vacancy rate were in line. Thereafter, in December 2020 and May 2021, labor supply and demand were also in line, but compared to May 2020, due to mismatch the unemployment rate rose in December 2020 and May 2021, indicating that the mismatch gradually expanded in the wake of the pandemic. However, unemployment due to the mismatch is smaller during the pandemic than that in 2015, when the labor supply and demand matched.

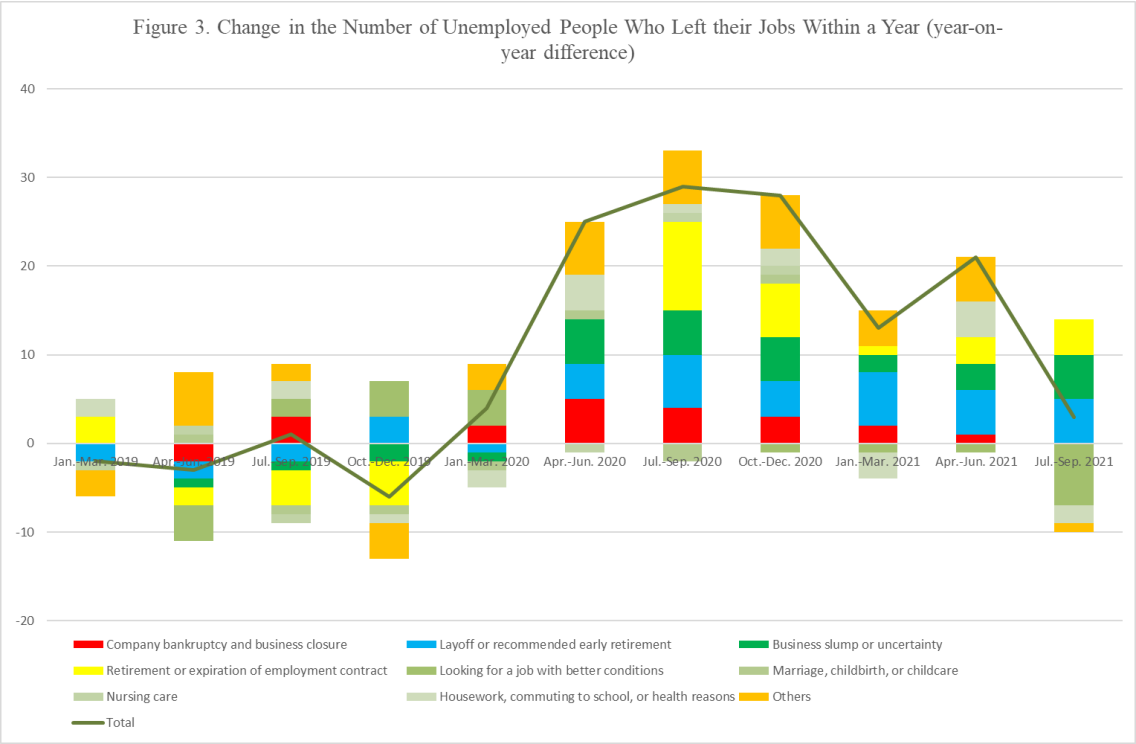
[4] The calculation method used for the vacancy rate and the unemployment rate is that used in the Japan Institute for Labour Policy and Training's *Youth Labour Statistics 2020*. The vacancy rate = (number of active job openings - number of job openings / employment) / (number of active job openings –number of jobs + number of employed persons), and the unemployment rate = number of completely unemployed persons / (number of employed persons + number of completely unemployed persons).



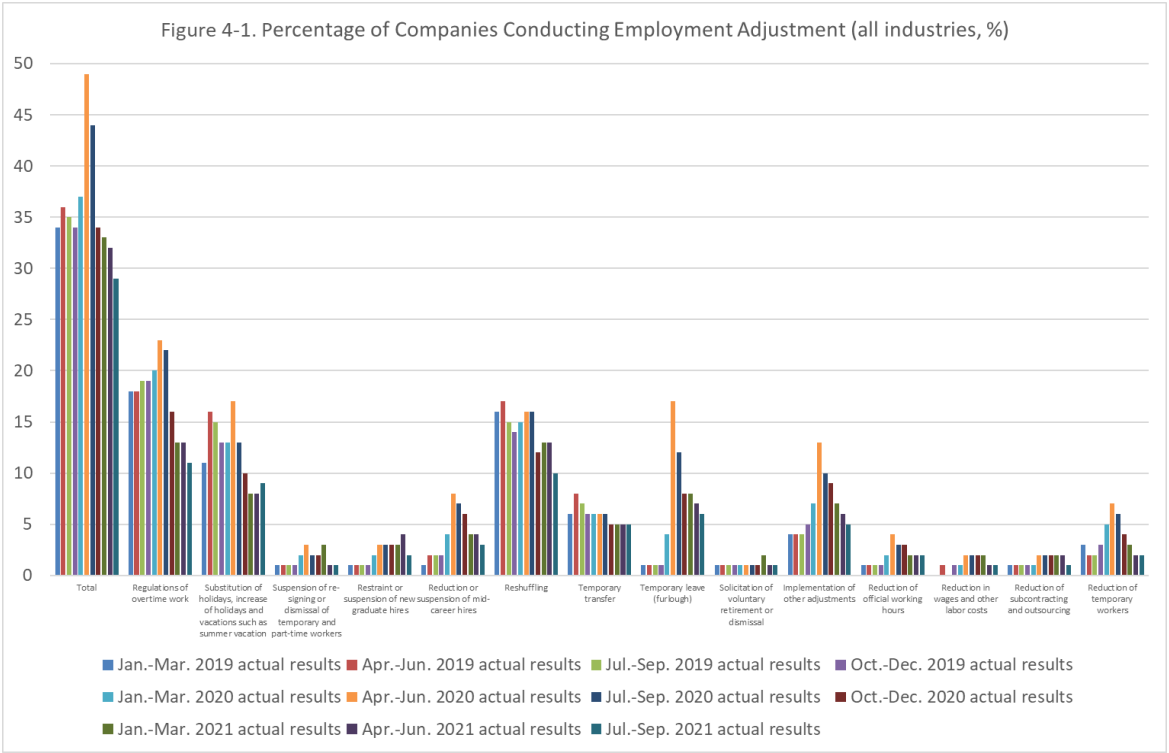
Source: Labor Statistics Survey, Ministry of Internal Affairs and Communications.
Note: Seasonally-adjusted figures are used for the difference between the same month of the previous year.



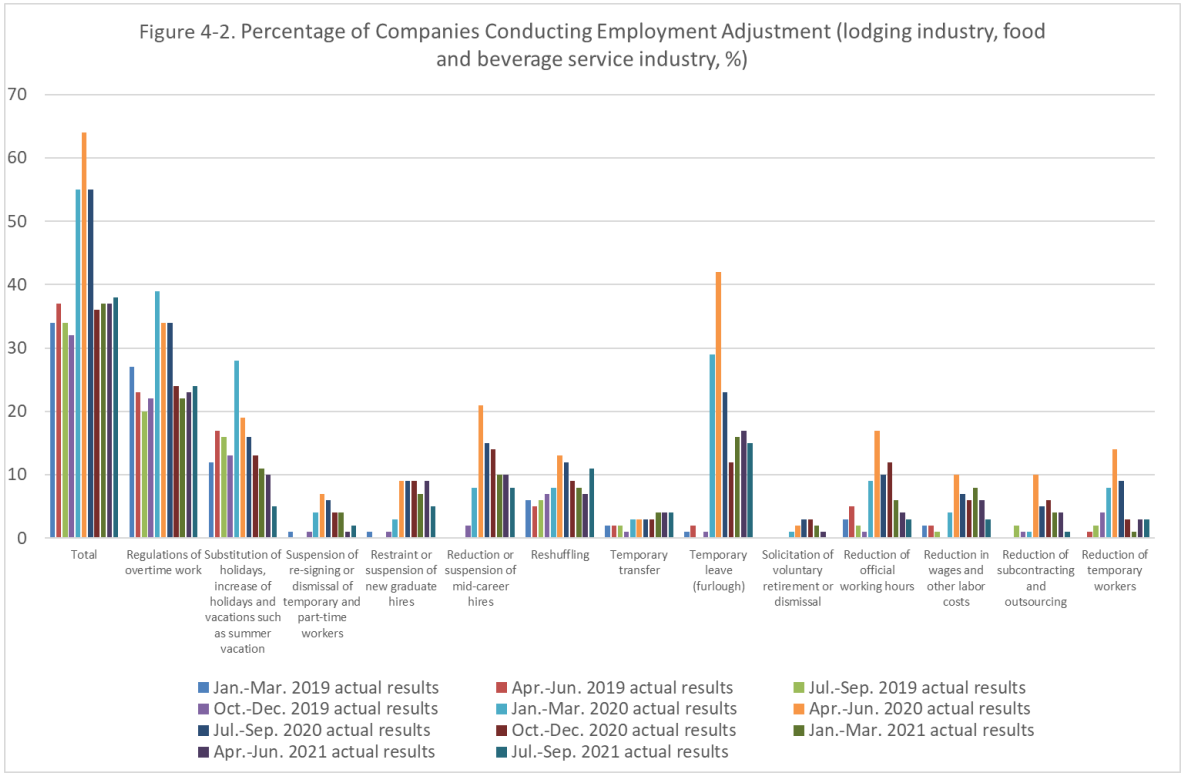
Source: Labor Statistics Survey, Ministry of Internal Affairs and Communications.
Note: Seasonally adjusted figures. Year-on-year difference in 2021 compares to 2019.



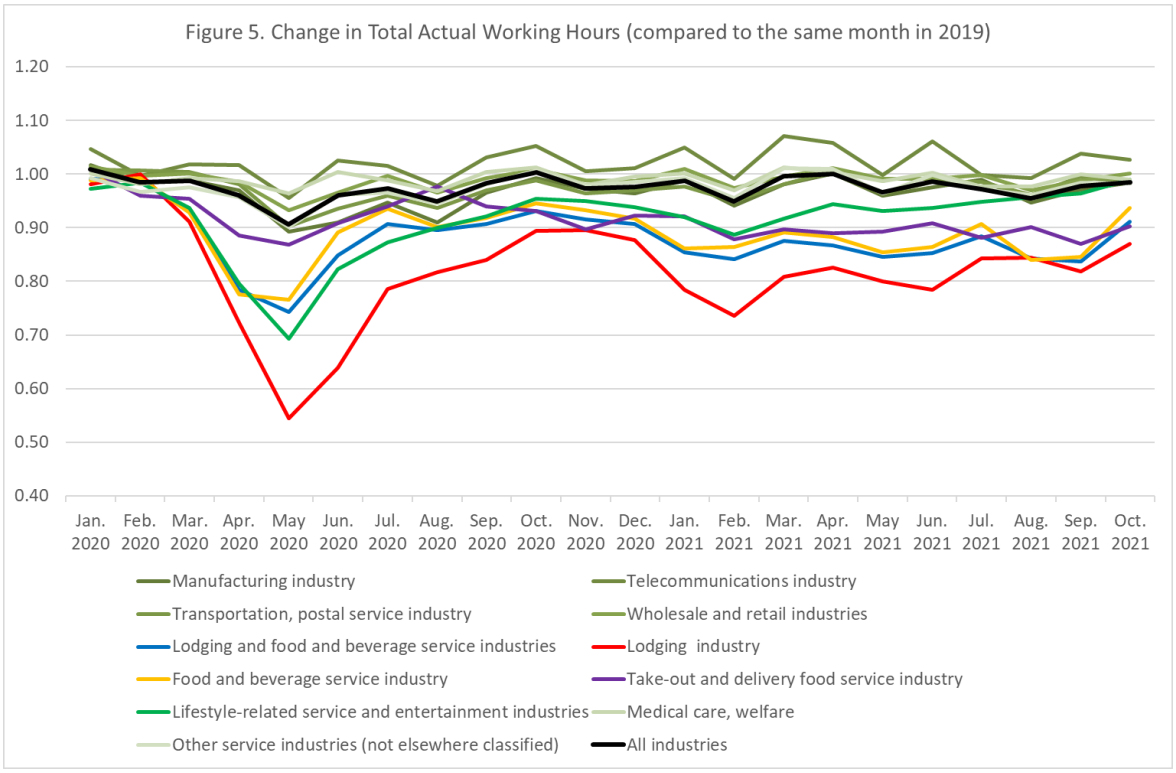
Source: Ministry of Internal Affairs and Communications, "Labour Force Survey (Detailed Tabulation).
Note: 2021 year-on-year differences are used for 2019 year-to-year differences.



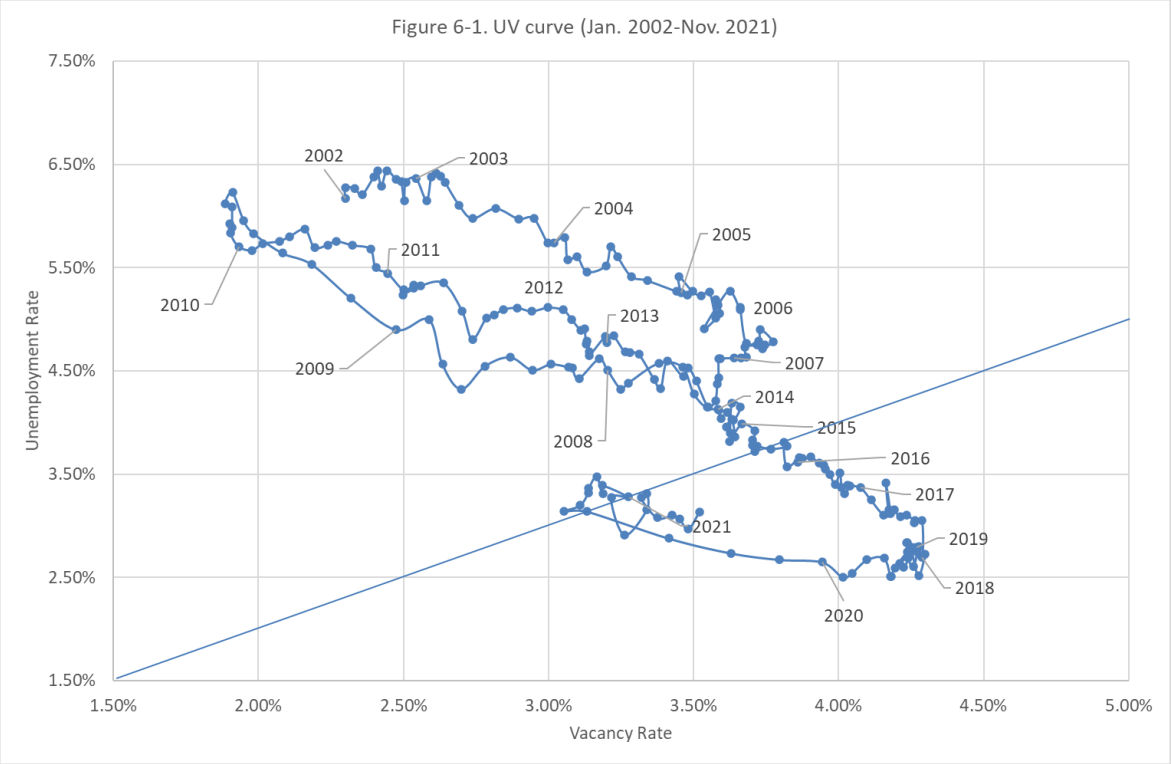
Source: Ministry of Health, Labour and Welfare, "Survey on Labour Economy Trend."



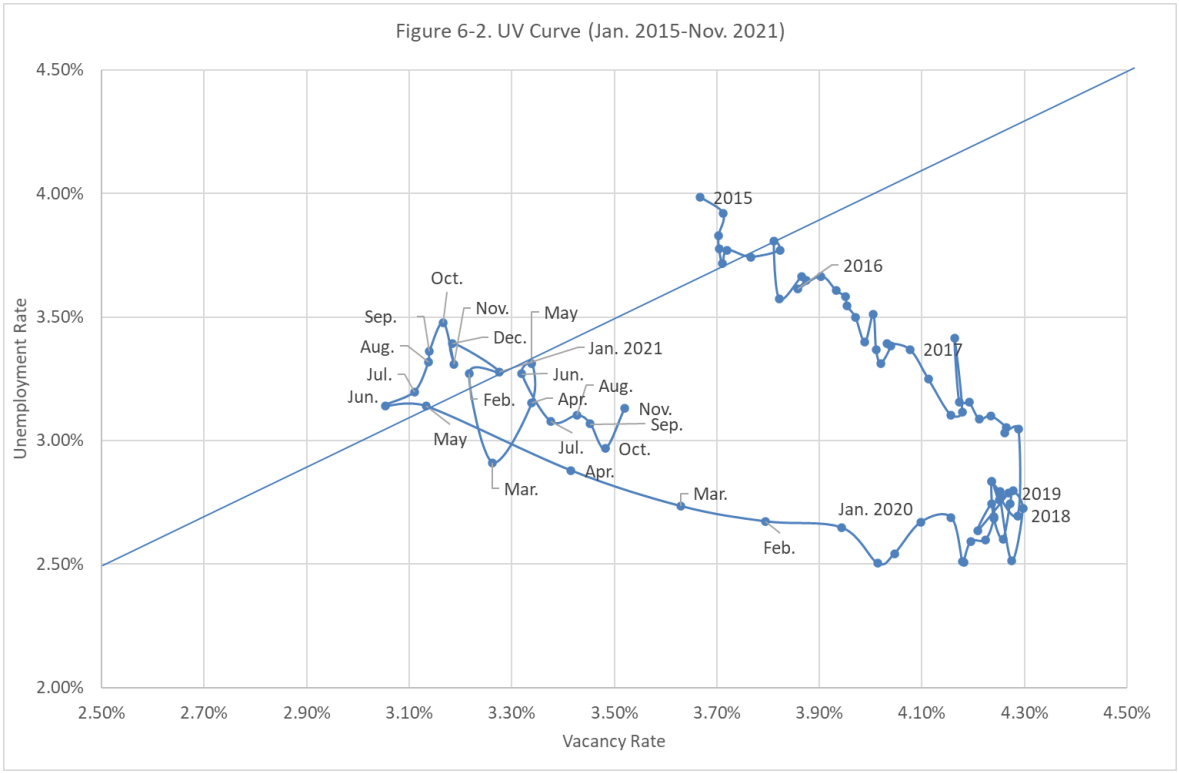
Source: Ministry of Health, Labour and Welfare, "Survey on Labour Economy Trend."



Source: Monthly Labour Statistics, Ministry of Health, Labour and Welfare.



Source: Ministry of Health, Labour and Welfare, "General Employment Placement Situation"; Ministry of Internal Affairs and Communications, "Labour Force Survey."
Note: The calculation method for the vacancy rate and the total unemployment rate is the same as that used by the Japan Institute for Labour Policy and Training, "Youth Labour Statistics 2020." Vacancy rate = (number of active job openings - number of job openings) / (number of active job openings - number of job openings + number of employed persons); unemployment rate = number of totally unemployed / (number of employed persons + number of totally unemployed persons). The values used in the tabulation are seasonally adjusted.



Source: Ministry of Health, Labour and Welfare, "General Employment Placement Situation"; Ministry of Internal Affairs and Communications, "Labour Force Survey."
Note: The calculation method for the vacancy rate and the total unemployment rate is the same as that used by the Japan Institute for Labour Policy and Training, "Youth Labour Statistics 2020." Vacancy rate = (number of active job openings - number of job openings) / (number of active job openings - number of job openings + number of employed persons); unemployment rate = number of totally unemployed / (number of employed persons + number of totally unemployed persons). The values used in the tabulation are seasonally adjusted.

This is an English translation of the article posted on the NPI website on January 24, 2022.