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Long-Term Unemployment: Current Status and Countermeasures

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Article Based on Research Report

NEXT ISSUE (Autumn 2015)
The autumn 2015 issue of the Review will be a special edition devoted to **The System of Labour Relations Commissions: Retrospects and Prospects**.

Introduction

Long-Term Unemployment: Current Status and Countermeasures

In June 2013 the administration of Japanese Prime Minister Shinzo Abe released a long-term growth strategy, which included the target of reducing the number of the long-term unemployed (persons who have not worked for six months or more) by 20% over five years. With Japan in recovery following the global financial crisis of the late 2000s, and emerging at last from many years of deflation, the labor market is steadily gaining strength. Some sectors, such as construction, are actually suffering from understaffing, with not enough workers to fill the available positions as the country rebuilds infrastructure following the 2011 Great East Japan Earthquake and prepares for the 2020 Tokyo Olympics. With a resurgent economy and shortages of workers in some industries, enterprises, especially major corporations, have agreed to significant wage increases during the last two years' annual springtime labor-management negotiations. Thanks to an increasingly robust economy, the total unemployment rate had fallen to 3.4% in March 2015, according to the Labour Force Survey by the Ministry of Internal Affairs and Communications (MIC), putting the nation close to universal employment. However, while the overall drop in the unemployment rate is cause for celebration, the picture is more sobering when one more closely examines which workers are managing to exit the pool of the unemployed, and which are not. A cause for anxiety is the number of the long-term unemployed.

According to the article herein by Takehisa Shinozaki, the percentages of the long-term unemployed (who have not worked for six months or more) have been declining over the past few years, but as of 2014 still stood at 2.4% of men and 1.4% of women. In 2010, with Japan reeling from the financial crisis, these figures stood at 3.5% (men) and 2.0% (women).

It is obvious that job-seeking support for the long-term unemployed is even more important and necessary than for their short-term unemployed counterparts. Long periods of unemployment result in declining incomes, growing poverty, and an accompanying rise in public assistance payouts and other social welfare costs. They can also cause *hikikomori* (withdrawal from society) and loss of self-esteem, making it that much more difficult for the long-term unemployed to rejoin society and return to work. In addition, long-term unemployment causes human capital accumulated over the years to deteriorate and productivity to decline, meaning that even when people are hired it is only at low-wage jobs with uncertain terms of employment. As discussed in the article by Naoki Mitani, "unemployment exit probability" is negatively dependent on duration of unemployment. In other words, the longer the duration of unemployment, the lower the probability of exiting unemployment becomes, meaning it is all the more vital to provide job seekers with support so they can achieve re-employment before entering the ranks of the long-term unemployed.

Before formulating measures to combat long-term unemployment, it is vital to iden-

tify the characteristics of the population in question. Mitani's article notes the high incidence of long-term unemployment among younger people, who constitute 30–40% of the long-term unemployed, an incidence that has been trending upward over the past two decades regardless of changes in economic conditions.

This special edition aims to clarify the current status of long-term unemployment, related challenges, and effective countermeasures. The first half contains an outline and theoretical examination of problems on long-term unemployment, and a chronological overview of long-term unemployment in Japan, with the relevant issues identified. The second half discusses the country's measures to combat long-term unemployment.

Mitani's article presents a theoretical survey of mechanisms behind the occurrence of long-term unemployment, including labor demand factors, labor supply factors, and institutional factors. Within the framework of the analytical method known as duration analysis, two main factors are identified: overall unemployment rates and negative duration dependency in the probability of exit. The article focuses in particular on the second factor, and theoretically outlines the mechanism behind this negative duration dependency. When adopting a labor demand side approach, factors that emerge are labor markets with asymmetric information that are disadvantageous to the long-term unemployed during screening of recruits, and the ranking rule in which companies hire the worker with the shortest unemployment duration. On the labor supply side, the article notes an equilibrium in which unemployment periods are prolonged by deterioration of human capital, for which there is strategic compensation through market externality. It also discusses the impact of unemployment insurance systems and employment regulations on long-term unemployment. Finally, the article summarizes problems caused by long-term unemployment in terms of impact on wages, persistence of unemployment, and happiness levels.

The article by Shinozaki, based on a 2004 paper by the same researcher, tracks changes in long-term unemployment from 2004 and particularly after the financial crisis through the Labour Force Survey and the Basic Survey on Employment Structure (MIC), and performs an analysis of factors behind the rise in the number of the long-term unemployed after the financial crisis. Key factors contributing to this rise were an increase in long-term unemployment in particular, an increase in the unemployment rate in general, and the growth of the labor force population. According to Shinozaki's analysis, the second factor (growth of the overall unemployment rate) is the primary driver of rising numbers of long-term unemployed, with a 3/4 contribution weight, while the weight of contribution of the first factor (increase in the long-term unemployment rate) was also 1/3 to 1/4. The article also notes that the long-term unemployment rate is higher in Japan's three main metropolitan areas than in more rural areas. However, there are significant numbers of long-term unemployed in rural regions as well, and long-term unemployment there tends to be more persistent than in cities.

Based on the above-described situation in Japan today, the second half of this special edition examines the impact of long-term unemployment on the nation, countermeasures by

Public Employment Security Offices, and efforts to combat long-term unemployment from a legal standpoint.

The article by Atsushi Sannabe identifies decreasing rates of occupational inheritance as one factor behind rising long-term unemployment and worklessness. Inheritors (children) acquire human capital, physical capital, and human networks from their parents, making it less likely they will become unemployed or jobless. There is a strong relationship between human networks and long-term unemployment, in that loss of employment disrupts human networks, contributing to prolongation of unemployment, while those who have never had strong human networks to begin with have difficulty in securing re-employment once unemployed, exacerbating long-term unemployment. In short, forming and maintaining ties with others is of crucial importance.

Eiichi Nomura's article gives an overview of the Comprehensive Support Project for the Long-term Unemployed, led by the Ministry of Health, Labour, and Welfare (MHLW), and its effects. In this project, public Employment Security Bureaus have teamed up with private-sector employment placement businesses to provide job-seeking support for the long-term unemployed. The project is characterized by its two-pronged approaches, with concurrent job-seeking support and employment opportunity development, and joint support from Public Employment Security Offices and private-sector employment placement businesses. Another feature is follow-up support for stabilization in the workplace after job seekers have been matched with employers. In fiscal 2013 the number of job seekers receiving support was 4,120, of which 3,050 achieved job placement.

Finally, Yasuyuki Konishi's article examines the question of how the legal system should be improved so as to reduce long-term unemployment. Article 27 of the Constitution of Japan is interpreted as obliging the Japanese government to provide work opportunities suited to individual aptitudes and abilities. However, due to an employment system encouraging workers to accumulate human capital that only has value within internal labor markets, and the failure of skills to keep pace with the rapid advance of technological innovation, an increasing number of workers are not receiving these constitutionally guaranteed employment opportunities. These workers are prone to unemployment, which is apt to be prolonged if they are supported by public assistance. As for approaches to tackling long-term unemployment, two changes to the labor environment are required. One is to create an environment where workers can increase their employability by adapting flexibly to the labor market and obtaining the skills that the market currently requires, and the other is to foster an environment where workers can autonomously achieve professional self-fulfillment.

The above is a summary of this special edition.

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Mechanisms behind the Occurrence of Long-Term Unemployment and the Problems It Causes: A Theoretical Investigation

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This paper is mainly concerned with surveying theoretical literature on the mechanisms behind the occurrence of long-term unemployment and the problems caused by long-term unemployment. Factors behind increases in the incidence of long-term unemployment may be broadly divided into a decrease in the exit probability from unemployment of average duration, and an increase in the negative unemployment duration dependency of the exit probability. A decrease in the exit probability from unemployment of average duration is mostly caused by the same factors as a general increase in unemployment. On the other hand, there are various hypotheses concerning factors that cause the negative duration dependency of the exit probability. For example, (i) the screening hypothesis, whereby the exit probability of long-term unemployed decreases because unemployment duration is used as information showing the ability of workers as a method of recruitment screening, when there are heterogeneities among jobseekers; (ii) the ranking rule hypothesis, whereby the exit probability of long-term unemployed decreases because jobseekers with the shortest unemployment duration are chosen when there are no heterogeneities among jobseekers but there are multiple job applications for a job opening; (iii) the hypothesis that a negative duration dependency arises in the exit probability because workers' skills and willingness to work decrease during unemployment; and (iv) the hypothesis that the exit probability of long-term unemployed decreases because companies discriminate against long-term unemployed even if some unemployed workers invest financially in maintaining their skills. It has also been pointed out that long-term unemployment is prone to occur because the loss of skills due to unemployment is particularly pronounced at times when structural changes occur in the economy. Problems caused by long-term unemployment include the fact that increases in long-term unemployment cause wages to rise, make unemployment more persistent, and widen income disparity, and the fact that long-term unemployment significantly reduces the happiness level of the unemployed.

I. Introduction

In this paper, mechanisms behind the occurrence of long-term unemployment and problems associated with long-term unemployment will be investigated.

There has been increasing concern over long-term unemployment among OECD countries in recent years. Behind this lies the fact that long-term unemployment is increasing in OECD countries, in the wake of a delayed economy recovery following the Lehman shock. A particularly big problem is the prolongation of unemployment, mainly in southern European countries that fell into serious economic difficulties as a result of the Euro crisis (OECD 2012). In the USA, meanwhile, there is major concern over the worst increase in

long-term unemployed since the war (Krueger, Cramer, and Cho 2014; Kroft, Lange, and Notowidigdo 2013). In the past, there was high fluidity in labor markets, and although unemployment rates were high, they mainly concerned the short-term unemployed; the problem of long-term unemployment was not particularly highlighted. The pronounced increase in long-term unemployed during the current economic downturn could indicate some kind of structural change in labor markets. In Japan, the unemployment rate is low but the proportion of long-term unemployed is no lower than in other countries. A particular characteristic here is the high incidence of long-term unemployment for youth.

Long-term unemployment is a very serious problem for the individual concerned. For society, too, the fact that human resources go unused for a long time is a major loss. It will be extremely important to clarify the mechanisms behind the occurrence of long-term unemployment and to devise appropriate policies. Long-term unemployment causes various problems. In particular, the fact that increases in long-term unemployment are transforming unemployment into a persistent phenomenon and widening income disparity is a serious problem in terms of the efficiency and fairness of society. So what sort of problems are caused by long-term unemployment?

The composition of this paper is as follows. Firstly, trends in long-term unemployment in OECD countries will be surveyed in the next section. In section III, based on the theoretical framework of duration analysis, the relationship between the long-term unemployment ratio and unemployment exit probability will be formularized, along with the concept of the unemployment duration dependency of exit probability. In section IV, recent theoretical research on mechanisms behind the occurrence of long-term unemployment will be surveyed. In section V, problems caused by long-term unemployment will be enumerated. And the final section will be a summary.

II. Trends in Long-Term Unemployment

"Long-term unemployment" normally refers to unemployment with a duration of at least six months or at least one year. This unemployment duration may be the "completed spell of unemployment" at the point when the state of unemployment ends, or the "incomplete spell of unemployment" at a point when there has been no exit from the state of unemployment, as surveyed by Labour Force Surveys and others. As data on the former are often difficult to obtain, the latter unemployment duration will be used. So unless stated otherwise, data on unemployment duration in this paper refer to the incomplete spell of unemployment.

The incidence of long-term unemployment in OECD countries is high in Europe and Japan but low in North America and Scandinavia (Table 1). In Europe, it is particularly high in southern countries like Greece, Spain, Portugal and Italy. The incidence of long-term unemployment is generally high in countries with a high unemployment rate. On the other hand, there are also countries like Japan and Germany where the incidence of long-term

Table 1. Incidence of Long-Term Unemployment[a] and Unemployment Rates in Major OECD Countries (2013)

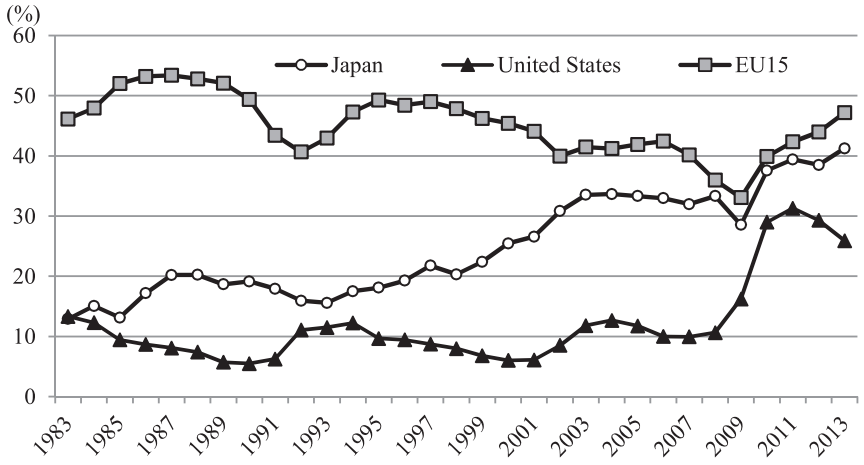
(%)

	Total			Males			Females		
	Incidence of long-term unemployment		Unemployment rate	Incidence of long-term unemployment		Unemployment rate	Incidence of long-term unemployment		Unemployment rate
	6 months +	1 year +		6 months +	1 year +		6 months +	1 year +	
Japan	56.0	41.2	4.1	63.9	48.7	4.3	43.4	29.3	3.7
United States	37.6	25.9	7.4	38.1	26.4	7.6	37.0	25.3	7.1
EU15[b]	63.8	47.2	11.0	64.3	47.6	11.0	63.3	46.7	10.9
Australia	34.2	19.2	5.7	35.3	20.1	5.7	33.0	18.1	5.6
Austria	43.4	24.3	4.9	43.4	25.4	4.9	43.3	23.2	4.9
Belgium	63.8	46.0	8.4	64.5	46.5	8.6	62.9	45.4	8.2
Canada	22.3	12.7	7.1	22.5	12.9	7.5	22.1	12.5	6.6
Denmark	41.9	25.5	7.0	39.4	23.5	6.7	44.5	27.5	7.3
Finland	36.0	21.2	8.2	39.8	23.6	8.7	31.3	18.1	7.6
France	59.4	40.4	9.9	60.1	40.8	10.0	58.7	39.9	9.8
Germany	60.3	44.7	5.3	60.9	45.4	5.6	59.4	43.8	4.9
Greece	81.1	67.5	27.3	80.7	66.4	24.3	81.4	68.6	31.3
Ireland	74.9	60.6	13.8	79.5	67.2	15.8	67.0	49.3	11.4
Italy	71.4	56.9	12.2	72.0	56.8	11.5	70.7	57.1	13.1
Luxembourg	48.8	30.4	5.8	49.1	30.5	5.4	48.5	30.4	6.4
Netherlands	54.7	35.9	6.7	55.3	36.3	7.1	53.9	35.3	6.3
New Zealand	31.9	12.1	6.2	33.2	13.6	5.6	30.7	10.7	6.9
Norway	28.7	9.2	3.5	29.5	10.5	3.7	27.8	7.5	3.3
Portugal	73.2	56.3	16.2	73.8	57.5	16.0	72.5	54.9	16.4
Spain	67.0	49.7	26.1	66.4	48.9	25.6	67.8	50.5	26.7
Sweden	33.0	17.0	8.0	35.4	18.7	8.2	30.1	15.0	7.9
United Kingdom	53.4	36.3	7.7	56.5	39.8	8.2	49.4	31.6	7.0

Source: OECD.Stat (extracted on 13 Jul 2014 00:09 UTC [GMT])

[a]Ratio of long-term unemployed to all unemployed.

[b]EU15 region: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.



Source: Same as Table 1.

[a]Ratio of unemployed with unemployment duration of 1 year or more to all unemployed.

Figure 1. Trends in Incidence of Long-Term Unemployment[a] in Japan, United States and Europe

unemployment is relatively high even though the unemployment rate is low.

By gender, the incidence of long-term unemployment is more or less the same in all countries; the exceptions are Japan and Ireland, where the incidence of long-term unemployment for males is considerably higher than that for females.

Chronologically, the incidence of long-term unemployment in Europe started rising in the second half of the 1970s, plateauing at fairly high levels of around 40-50% in the 1980s. Though in a somewhat decreasing trend over the long term since then, it has again risen since 2009 (Figure 1). In the USA, it was at the low level of around 10% between the 1980s and 2008, then rose sharply post-Lehman, reaching 31.3% in 2011 before decreasing slightly. Until then, the highest point since the war had been 13.3% in 1983. Compared to that, the increase in long-term unemployed in the recent downturn was unparalleled since the war. Japan had been trending in the latter 10% range between the beginning of the 1980s and the beginning of the 1990s, but continued to rise from the mid-1990s until around 2003. It then leveled off at around 33%, again rising to 40% post-Lehman. Comparing the above trends in the incidence of long-term unemployment in Japan, USA and Europe, particularly notable changes were (i) the continuous rise since the mid-1990s in Japan, and (ii) the sharp increase in the USA post-Lehman.

By age, the incidence of long-term unemployment generally tends to rise with increasing age (Table 2). However, there are many countries (notably Japan and southern European countries) where the incidence of long-term unemployment is also high at 30-40% or more among younger age groups. In many countries, the incidence of long-term unemployment among young people was lower in 2003 than it had been ten years earlier,

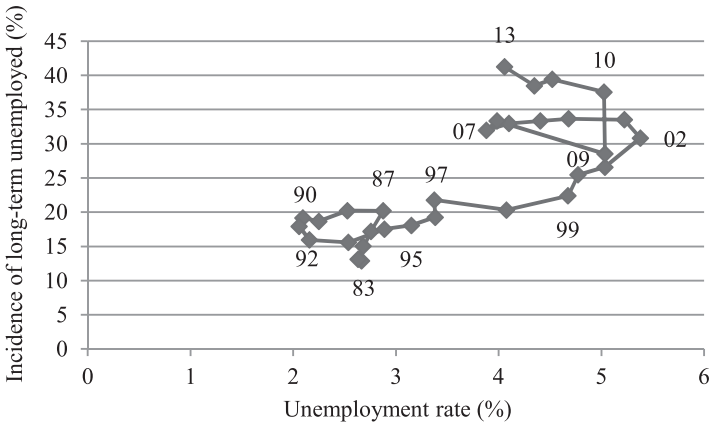
Table 2. Incidence of Long-Term Unemployment[a] by Age in Major OECD Countries

(%)

	1993			2003			2013		
	Ages 15−24	Ages 25−54	Age 55+	Ages 15−24	Ages 25−54	Age 55+	Ages 15−24	Ages 25−54	Age 55+
Japan	10.0	22.7	25.0	28.2	40.8	42.1	36.8	52.6	45.2
United States	5.5	16.2	23.6	8.0	13.4	20.4	17.7	28.6	35.4
EU15	33.9	42.3	52.5	26.4	43.1	57.4	35.5	49.1	60.8
Australia	28.7	44.1	59.8	14.0	28.9	46.1	15.5	20.0	34.3
Austria	..	..	..	10.6	23.6	54.3	13.4	25.9	53.0
Belgium	27.7	51.1	73.5	25.3	50.1	72.2	29.8	49.8	68.1
Canada	9.9	18.7	27.7	3.7	11.0	20.8	5.7	13.2	18.6
Denmark	12.3	24.6	44.2	9.6	25.2	43.4	9.3	27.9	38.2
Finland	16.8	37.9	39.7	7.5	32.3	53.8	7.4	26.5	45.2
France	18.2	33.5	63.2	24.0	42.9	60.3	28.1	43.1	55.2
Germany	19.1	37.8	48.2	25.5	49.5	63.7	24.0	45.6	62.5
Greece	37.3	44.0	45.4	41.9	49.3	59.9	53.9	67.6	73.7
Ireland	51.9	67.2	71.9	24.3	45.2	49.6	48.7	70.4	77.3
Italy	57.4	53.8	51.8	55.0	59.7	62.2	55.8	56.4	62.8
Luxembourg	..	35.7	..	26.2	34.2	22.5	28.0	28.9	50.0
Netherlands	42.2	54.9	74.1	12.9	29.6	55.0	19.2	36.8	55.1
New Zealand	26.9	43.4	59.3	6.5	19.0	32.7	6.3	18.3	22.9
Norway	14.3	28.9	40.0	2.4	8.6	16.5	3.4	12.8	31.2
Portugal	27.5	41.4	58.3	20.5	35.3	50.1	40.2	58.3	75.4
Spain	31.0	39.7	52.4	22.4	28.6	52.1	41.6	48.2	65.3
Sweden	11.2	18.7	33.4	6.8	19.5	40.0	5.9	24.9	31.3
United Kingdom	35.6	51.4	55.2	12.6	31.0	40.7	32.2	43.9	48.5

Source: Same as Table 1.

[a]Ratio of unemployed with unemployment duration of 1 year or more to all unemployed.



Source: Same as Table 1.

[a]Ratio of unemployed with an unemployment duration of 1 year or more to all unemployed.

Figure 2. Relationship between Unemployment Rate and Incidence of Long-Term Unemployment[a] (Japan)

Source: Same as Table 1.

[a]Ratio of unemployed with an unemployment duration of 1 year or more to all unemployed.

Figure 3. Relationship between Unemployment Rate and Incidence of Long-Term Unemployment[a] (United States)

suggesting a susceptibility to the impact of economic cycles. Nevertheless, while the incidence of long-term unemployment among youth has risen consistently over the last 20 years in Japan, the rise in older age groups has slowed in recent years.

A strong correlation can be seen between the unemployment rate and the incidence of long-term unemployment. In terms of a cross-section, the correlation coefficient for the 2013 data in Table 1 is 0.694. A strong correlation can also be seen between the chronological data in Japan and the USA (Figures 2 and 3).

III. Dynamic Analysis of Long-Term Unemployment and Duration Dependency[1]

This section presents a theoretical framework for analyzing long-term unemployment, and establishes formulae for the unemployment exit probability and unemployment duration dependency, key concepts when considering long-term unemployment.

1. Duration Analysis

Here, the analytical method known as duration analysis will be used as a theoretical framework. This method begins with the unemployment exit probability (hazard probability = the probability at any given moment that a worker will exit unemployment) and derives all other functions from this probability. Where the unemployment duration is t, the unemployment exit probability is expressed as $h(t)$. The exit probability could also depend on other observable properties, but for the sake of simplicity, these will not be postulated here. The exit probability function $h(t)$ can be interpreted as a reduced form after individual unobservable heterogeneities have been excluded. It may also be regarded as the probability of exiting unemployment either by being hired or by leaving the labor force. If the exit probability is determined in a manner dependent on the duration of unemployment, a "duration dependency" is said to exist. And when there is a correlation between the two, in that the exit probability decreases as the duration of unemployment increases, a "negative duration dependency" is said to exist.

$G(t)$ expresses the probability distribution of completed unemployment durations. That is, $G(t) \equiv Pr(T < t) \equiv$ the probability that the completed employment duration T for a given unemployed person is shorter than t. The density function of this probability distribution is taken as $g(t) \equiv G'(t)$. In this case, the instantaneous exit probability function $h(t)$ is defined as follows. This definition means that the probability that an unemployed person who has still not exited unemployment at point *t* will exit unemployment during the instantaneous time Δt (i.e. between t and $t + \Delta t$) is given as $h(t)\,\Delta t$.

$$h(t) \equiv \lim_{\Delta t \to 0} \Pr(t \le T < t + \Delta t \mid t \le T)/\Delta t$$

$$= \lim_{\Delta t \to 0} (G(t + \Delta t) - G(t))/(\Delta t\ (1 - G(t)))$$

$$= G'(t)/(1 - G(t)) = g(t)/(1 - G(t))$$

Thus, the following relational expression is obtained:

$$1 - G(t) = \exp\left(-\int_0^t h(s)ds\right)$$

[1] This section is largely based on Machin and Manning (1999). See their paper for the proofs of the propositions.

It should be noted here that, while the ratio of long-term unemployed is based on the incomplete unemployment duration in statistical data, the distribution of unemployment duration shown above relates to the completed unemployment duration. However, a simple relational expression arises between the incidence of long-term unemployment derived from the uncomplete unemployment duration and the probability distribution $G(t)$ derived from the completed unemployment duration, as shown below. Firstly, this relational expression is derived in a steady state. That is, the number of inflows to unemployment during a unit of time is taken as a constant N, and the number of outflows from unemployment is also taken as constant. Unemployed persons with current unemployment duration *t* are those who became unemployed before duration *t* and have not found jobs since. The number of these unemployed persons is $N[1 - G(t)]$. Thus, the following equation expresses the percentage $P(t)$ of unemployed persons whose current (incomplete) unemployment duration is longer than *t* in relation to all unemployed persons:

$$P(t) = \int_{t}^{\infty} [1 - G(s)]\, ds \Big/ \int_{0}^{\infty} [1 - G(s)] ds$$

Here, the following proposition arises:

Proposition 1

$$\frac{\partial ln P(t)}{\partial h(s)} = P(s) - 1 < 0 \qquad for \;\; s < t$$

$$\frac{\partial ln P(t)}{\partial h(s)} = P(s)\left(\frac{P(t) - 1}{P(t)}\right) < 0 \;\; for \;\; s \geq t$$

(Proof omitted)

This proposition means that changes in the incidence of long-term unemployment depend not only on changes in the exit probability from long-term unemployment, but also on changes in the exit probability from unemployment of all durations.

Thus, it may be considered that the incidence of long-term unemployment is determined by (i) the average exit probability from unemployment of all durations and (ii) the duration dependency of the exit probability. The former means that the incidence of long-term unemployment is a decreasing function of the average exit probability. The latter indicates the duration dependency of the exit probability from unemployment, i.e. that the probability of exit from unemployment depends on the duration of unemployment, and that this also influences the incidence of long-term unemployment.

The latter relation can be expressed more precisely as follows. Variable z is taken to influence the unemployment exit function, and the exit function is taken as $h\,(t, z)$. The corresponding distribution function for unemployment duration is taken as $G\,(t, z)$ and the density function as $g\,(t, z)$. Here, with τ as a suitable given duration, if z functions to increase the exit probability for t where $t \leq \tau$, and works to reduce the exit probability for t where $t > \tau$, it is natural to infer that the negative duration dependency of the unem-

ployment exit probability has increased. In this case, the following proposition arises:

Proposition 2

If $h_z(t,z) \geq 0$ for t where $t \leq \tau$, and $h_z(t,z) < 0$ for t where $t > \tau$, then the incidence of long-term unemployment will increase.

(Proof omitted)

Thus far, the framework for analyzing the incidence of long-term unemployment has assumed that the number of inflows to unemployment remains unchanged. However, how might this be affected if the number of inflows to unemployment were to change? For the sake of simplicity, it shall be assumed that the unemployment exit probability remains the same and only the entry probability changes. $N(s)$ is taken to express the number of inflows to unemployment at point s. On examining the unemployment structure at point τ, the number of persons unemployed at point s who have not found jobs at point τ is expressed as $N(s)[1 - G(\tau - s)]$. Thus, if $P(t, \tau)$ is taken as the incidence of long-term unemployment with unemployment duration t at point τ, the following will apply.

$$P(t,\tau) = \int_t^\infty N(\tau - s)[1 - G(s)]ds \,/\, \int_0^\infty N(\tau - s)[1 - G(s)]ds$$

If inflows to unemployment at the most recent point are numerous, the incidence of long-term unemployment decreases. Since inflows to unemployment increase or decrease as a result of economic cycles, they cause the incidence of long-term unemployment to fluctuate.

In fact, on close examination of the relationship between the incidence of long-term unemployment and the unemployment rate in Japan and the USA, the unemployment rate appears to change first, with changes in the incidence of long-term unemployment following afterwards. As a result, the scatter charts resemble counterclockwise spirals (Figures 2 and 3 above).

2. Unemployment Duration Dependency

Negative unemployment duration dependency of the unemployment exit probability may be observed in any country (Machin and Manning 1999). Here, however, a distinction should be made between true duration dependency and duration dependency caused by the unobserved heterogeneities of workers.

True duration dependency means that the long-term unemployed have fewer opportunities to find work. In other words, when a person becomes unemployed and is unable to find work, the unemployment exit probability decreases as the unemployment duration grows longer. Contrastingly, when there are unobserved heterogeneities among the unemployed, a relationship is observed whereby apparently the average unemployment exit probability decreases as the unemployment duration increases. For example, let us assume that there are two types of worker, that the unemployment exit probability of each is h_0 and h_1, respectively ($h_0 < h_1$), and that this does not change with time. However, let us also assume that the heterogeneities of these two types of workers are unobserved by the

observer. If the share of the first group in all unemployed in period t is taken to be $s(t)$ at this time, the unemployment exit probability of the unemployed as a whole will be given by $h(t) = s(t)h_0 + \big(1 - s(t)\big)h_1$. Since the first group's exit probability is lower than that of the second group, the share in all unemployed $s(t)$ will increase with t. Therefore, the exit probability of the unemployed as a whole $h(t)$ gradually decreases as the unemployment duration t grows longer, giving the appearance that there is a negative duration dependency.

IV. Mechanisms behind the Occurrence of Long-Term Unemployment

The main factors responsible for the increase in the incidence of long-term unemployment are thought to be a low average unemployment exit probability and the presence of negative duration dependency in the probability of exit. The former is associated with the fact that the overall unemployment rate is high. Theoretical analysis of factors behind the increase in the overall unemployment is beyond the scope of this paper; the reader is referred to other literature in the field (Layard, Nickell, and Jackman 2005; Bean 1994; Kuroda 2001; Ohta, Genda, and Teruyama 2008, etc.). As causative factors, many of these authors cite a lack of aggregate demand, generous social welfare benefits, strong bargaining power of labor unions, a high minimum wage, dismissal regulation, advances in skill-oriented technology, and globalization, among others.

Here, the investigation will mainly focus on uncovering the mechanisms that cause negative duration dependency, whereby the exit probability from unemployment decreases as the unemployment duration grows longer. One theory on this explains that, as a factor on the employer's side, the exit probability of long-term unemployed is low because they are not hired, as they are regarded as offering low productivity for one reason or another (whether reasonable or not). On the worker's side, conversely, there are theories that explain that, as the unemployment duration grows longer, disappointment over the failure to find a job leads to a loss of willingness to find work, or that, as the unemployment duration grows longer, skill levels decrease, thus making the unemployment duration even longer. Besides these, institutional factors including the unemployment insurance system and dismissal regulation are also conceivable. These factors are not mutually exclusive; in fact, it has been shown that the synergistic effect of these factors causes the exit probability of long-term unemployed to decrease.

In the following, mechanisms behind the occurrence of long-term unemployment will be clarified by surveying each of these theories.

1. Factors on the Labor Demand Side

There is a theory that the long-term unemployed have a low exit probability because companies, as their hiring policy, discriminate against them for one reason or another and thus do not hire them.

(1) The Screening Hypothesis

Lockwood (1991) constructed a theory to the effect that negative duration dependency arises because, in the process of a company screening workers to hire, unemployment duration acts as a signal for workers' ability. This model assumes the heterogeneity of workers. When hiring staff, companies carry out tests to find out a worker's ability. If several companies select new recruits using these tests, the ability of a worker who has not been selected will be relatively low. Therefore, the length of the unemployment duration can become a signal showing the worker's ability. In other words, this means that a worker's ability has the externality of being known by other companies. Companies screen and hire workers based on the results of tests they themselves carry out, and on information in the form of the unemployment duration. If a given company's test results are the same for more than one worker, the one with the shorter unemployment duration will be given priority when hiring. As a result, the unemployment exit probability of the unemployed becomes lower as the unemployment duration grows longer.

Lockwood considers a situation in which a company hires workers as a result of a hiring test. In this case, externality arises in that information on the productivity of workers who were not hired is conveyed to other companies. Then, other companies can make hiring decisions based on this information. In other words, they can get a free ride. If the unemployment duration is longer than a given period, the worker is not hired, and this method makes it possible for workers with higher productivity to be hired.

For this situation to be permanently in equilibrium, a company would need an incentive to carry out tests even if it gives other companies a free ride. Lockwood analyzes the conditions under which such equilibrium exists, and analyzes their characteristics in detail. What this proves is that, firstly, information arising from the tests is always used. However, even if a company were to discover benefit in conducting tests, it would after all be beneficial to the company if long-term unemployed with unemployment duration longer than a certain length were not hired. Secondly, the critical value of unemployment duration for deciding whether or not to hire changes depending on the state of labor supply and demand. The tighter the labor supply and demand, the shorter the critical value of the unemployment duration. Moreover, the lower the cost of maintaining a job offer, the shorter the critical value of the unemployment duration.

These results explain the existence of the negative unemployment duration dependency of the re-employment probability. The negative unemployment duration dependency of the unemployment exit probability could also be explained using factors on the supply side. For example, there is a decrease in willingness to work and obsolescence of skills associated with protracted unemployment. However, the existence of discrimination against the long-term unemployed has also been pointed out. When based on irrational discrimination, this phenomenon should be eliminated in competitive industries where entry is unrestricted. This model provides an explanation based on rational discrimination, and is therefore taken to have clarified the theoretical framework for discussing measures to combat it.

If there are heterogeneities in workers' abilities and it is highly likely that workers with long unemployment duration would have lower ability, it does not necessarily mean the failure of the market if these heterogeneities are not known to the researcher but may be observed by the company. However, if there is private information about these heterogeneities, this screening method introduces a kind of externality, and therefore, the policy response could lead to Pareto improvement.

Nevertheless, unemployment duration dependency (true duration dependency) sometimes arises even when there are no heterogeneities among workers. Even if workers were previously homogeneous, when there are several jobseekers applying for one job opening, the method of hiring the one with the shortest unemployment duration (the ranking rule; see below) is applied, or else the worker sometimes loses skills during the unemployment duration, and subsequently becomes heterogeneous.

(2) The Ranking Rule Hypothesis

Blanchard and Diamond (1994) compare two types of situation in which multiple jobseekers apply for a single job opening, and analyze their respective situations of unemployment, distribution of unemployment duration, and wages. In one situation, companies adopt the method of hiring the worker with the shortest unemployment duration (the ranking rule); in the other, they hire at random, irrespective of the unemployment duration. The authors' first finding is that, when ranking is applied, the duration dependency is stronger if the unemployment rate is higher during a recession. This is in addition to the self-explanatory result that the unemployment exit probability decreases as the unemployment duration lengthens (there is negative duration dependency). If the labor market is tight, there is a smaller ratio of jobseekers to job openings. Therefore, most job openings have either one or zero applications from jobseekers. And therefore, the long-term unemployed have more or less the same employment probability as the short-term unemployed. When labor supply and demand become more relaxed, on the other hand, the number of jobseekers to job openings increases, meaning there are more applicants for each job. Therefore, the long-term unemployed have a markedly lower probability of getting employed than the short-term unemployed. The problem is the attitude of companies to the long-term unemployed. That is, if companies hire jobseekers with the shortest unemployment duration from a long line of applicants (i.e. apply the ranking rule), even if the loss of skills due to the longer unemployment duration is fairly minor, long-term unemployment could become persistent.

Next is the impact on wages. Since wages depend on the future unemployment duration, the existence of long-term unemployed in itself hardly impacts wages at all. If companies adopt the ranking rule when hiring, currently employed workers can assume a strong position in wage negotiations, because even if they became unemployed they would have a higher priority for re-employment. Therefore, compared to cases where the ranking rule is not applied, the equilibrium wage would be higher. Under the ranking rule, moreover, eco-

nomic crises have a larger short-term effect on wages.

2. Factors on the Labor Supply Side

(1) Deterioration of Human Capital, Loss of Willingness to Seek Work

If skills and willingness to seek work decrease during a period of unemployment, the unemployment exit probability acquires duration dependency. The rationale behind this is that, as the unemployment duration grows longer, the worker's ability decreases and companies are less inclined to hire, while the unemployed lose the willingness to seek work. As a result, the probability of transition from unemployment to employment decreases.

Acemoglu (1995) constructed a model whereby a worker endogenously chooses whether or not to maintain skills during a period of unemployment. The model assumes a priori that there are homogeneous workers; that workers must bear certain costs in order to maintain skills during a period of unemployment; and finally, that it cannot be directly observed whether or not they have maintained skills during a period of unemployment, but it is only known on completion of short-term training period after being hired. Based on these assumptions, two types of equilibrium are shown to exist. One is the "skill-loss-equilibrium." With this equilibrium, all long-term unemployed are subject to discrimination by companies in high-skill sectors; in anticipation of this, the long-term unemployed do not bear the costs of maintaining skills necessary for employment in high-skill sectors. As a result, companies in those sectors discriminate against the long-term unemployed when hiring. The other equilibrium is the "non-skill-loss-equilibrium." With this equilibrium, hiring decisions are unrelated to a worker's unemployment duration. With the skill-loss-equilibrium, the long-term unemployed have a lower unemployment exit probability than the short-term unemployed. To put it another way, they have negative duration dependency. Also, compared to the non-skill-loss-equilibrium, the steady state unemployment rate and the incidence of long-term unemployment are both high while the public welfare element is low.

When in a skill-loss-equilibrium, public policies are required. These could include direct subsidies, positive discrimination and labor market policies (re-training). However, direct subsidies and positive discrimination by the private sector are not generally effective. When companies hire long-term unemployed workers, direct subsidies give an incentive to dismiss them as soon as the opportunity arises. In that case, the long-term unemployed themselves will not bother to maintain skills during a period of unemployment, either. Contrastingly, positive discrimination and labor market policies (training policies) by the public sector could be effective. In the case of positive discrimination, based on a policy of employing the long-term unemployed in the public sector, the long-term unemployed will maintain skills in order to be employed in the public sector. In equilibrium, therefore, the long-term unemployed would be hired even in private sector high-skill sectors. If the government has the commitment to hire and test them, the long-term unemployed will take the initiative to improve their skills. However, government labor market policies in the form of re-training programs, though effective, reduce workers' incentives to maintain skills. As

such, there could be an equilibrium with higher Pareto efficiency than this. The transition to the equilibrium with higher Pareto efficiency is difficult when based on labor market policies. By contrast, positive discrimination by the public sector can facilitate such a transition, as long as it is not overused.

Ljungqvist and Sargent (1998) used a general equilibrium search model to show that long-term unemployment arises because workers' skills and their willingness to seek work decrease during a period of unemployment. In particular, when a welfare nation with well-developed systems of unemployment insurance and other social welfare suffers a major economic crisis, as in Europe after the 2nd oil crisis, if workers with long years of service in a structurally depressed industry are dismissed and become unemployed, the value of their skills is significantly lost, and it takes time to acquire the skills needed for employment in a new industry. Again, as a result of unemployment insurance benefit being paid in line with (high) wages in the previous job, the reservation wage is high and the willingness to seek work also weakens. A major causative factor behind the growth in long-term unemployment in Western Europe since the 1980s is said to lie in the loss of skills and decrease in willingness to seek work among the unemployed in welfare nations affected by major economic crises.

(2) Thin Market Externality

If we assume that workers' skills decrease during a period of unemployment, it will inevitably result in negative unemployment duration dependency of the exit probability, and unemployment would persist. However, it is doubtful whether this could have sufficiently long effects to indicate the persistence of unemployment actually observed in Western European countries. If those made unemployed by the crisis in question were re-employed, the persistence of unemployment for this reason would not be expected to be so long. In fact, even in Western European countries, the average unemployment duration is not so long.

Pissarides (1992) used search theory to show that this weakness is compensated by the appearance of thin market externality in the labor market, based on the assumption that workers' skills decrease during unemployment. Pissarides then deduced that the state whereby macro employment deviates from the steady state becomes persistent and the unemployment duration grows longer, and further that the economic crisis could permanently shift the state of employment or unemployment to a new equilibrium. The mechanism of this is as follows. If workers' skills decrease during unemployment, the situation becomes less desirable for companies. In that case, job openings in the following term would decrease. Because the unemployed generally have lower human capital, the market would become a thin market (i.e. a market with few job openings and little matching between job openings and jobseekers). When there is a negative economic shock, job openings tend to be fewer than in past trends. The unemployment duration of the new generation of unemployed would thus be longer than the trend, and human capital would decrease. Therefore, even if all of the former unemployed were to exit from unemployment, the market would

still be thin. Thin markets lead to further shortages in job openings, and this causes the market thinness to persist further. In this way, the impact of the shock is sustained, and if the thin market externality is large enough, the economy can fall into a low-level state of equilibrium. More than one type of equilibrium could even exist under constant returns to scale production and matching technology.

3. Institutional Factors

As other factors that cause long-term unemployment, let us now consider institutional factors.

(1) Unemployment Insurance Systems

If there is an unemployment insurance system, workers' consumption before and after unemployment is leveled out by the payment of unemployment benefit. This results in higher economic welfare than if there were no unemployment insurance system. Again, receiving an income during a period of unemployment means that time can be taken to find the right job, thus increasing the likelihood of finding the right job. In other words, it is effective as a form of insurance. On the other hand, the existence of unemployment benefit reduces incentives to look for work, with the effect that less effort is invested in jobseeking, and the unemployment duration grows longer. How to adjust these opposing effects of insurance and incentives are adjusted is a key point in the design and operation of unemployment insurance systems.

According to the partial equilibrium search theory, the effect of unemployment benefit on unemployment exit probability is as follows (Tatsiramos and van Ours 2014). The unemployed choose a reservation wage at a point where the cost and benefits of continuing to look for work are balanced. They then compare this with the conditions of job openings, and decide whether to apply for job openings. If the benefit level rises, the reservation wage also rises. This then reduces the unemployment exit probability, and the unemployment duration lengthens. This reaction of the unemployed towards more generous unemployment benefit is called the "moral hazard effect." The main effect remains unchanged even if the variable of the job-seeking effort is inserted into the model. If unemployment benefit is increased, not only does the reservation wage rise, but the unemployment exit probability also decreases as a result of the diminished job-seeking effort. If the benefit duration is determined, the value of unemployment falls before the benefit period expires, and the probability of exit rises due to the reduced reservation wage. Extensions of the benefit duration have the effect of increasing the reservation wage and lengthening the average unemployment duration.

On the other hand, increases in benefit levels have different effects on the behavior of the unemployed, depending on how much of the benefit period remains. Unlike the case of benefit duration, a rise in the replacement ratio (the ratio of the unemployment benefit amount to the salary before unemployment) has the largest effect at the beginning of the unemployment duration. For workers who have only recently become unemployed, a rise in

the replacement ratio has the effect of reducing the unemployment exit probability, by virtue of raising the value of unemployment. They demand higher wages in order to accept a job offer. Conversely, higher benefits for the unemployed near the end of the benefit period lead to a higher probability of exit due to the eligibility effect.[2]

(2) Employment Protection Legislation

Employment protection legislation increases the corporate cost of adjusting employment and has an impact on retirement management and hiring behavior. Theoretically, stricter dismissal regulation will reduce dismissals and diminish the probability of entry to unemployment. On the other hand, the greater difficulty of dismissal makes corporate hiring behavior more cautious and reduces hiring. Therefore, the unemployment exit probability decreases and the unemployment duration lengthens (Blanchard and Portugal 2001). However, it is not certain whether these effects also reduce the average probability of exit from unemployment and strengthen the negative unemployment duration dependency of the exit probability.

V. Problems Caused by Long-Term Unemployment

Finally, problems caused by long-term unemployment will be enumerated. Long-term unemployment is a serious situation both for the individual concerned and for society at large, and causes various problems. Thus, after first examining problems for the socio-economy in macro terms, i.e. wages, persistent unemployment, and income disparity, the impact on individual happiness levels will be examined.

1. Impact on Wages

What impact do the long-term unemployed have on wages? Machin and Manning (1999) use the efficiency wage hypothesis posited by Shapiro and Stiglitz (1984) to show that, with a positive time discount rate and unemployment at a given level, wages increase when the negative duration dependency of the unemployment exit probability is stronger. The intuitive explanation of this is as follows. To prevent workers from growing lazy, it is desirable from the company's viewpoint to reduce the usefulness of this being discovered, leading to dismissal and unemployment. This means that it is desirable to reduce the value of unemployment at the point of newly entering unemployment. At any given unemployment level, a stronger pre-existing negative unemployment duration means a relative fall in the exit probability of the long-term unemployed and a relative rise in that of the short-term unemployed. Therefore, if workers were to discount their future value, the value of unem-

[2] This is the effect whereby unemployed workers with no benefit eligibility and benefit recipients just before the end of the benefit period have greater incentives to enter employment, in order to be eligible for benefits when subsequently re-entering unemployment, and their exit probability therefore rises (Tatsiramos and van Ours 2014, 291).

ployment when the unemployment duration is short would have a greater weight, as a result of which the value of becoming newly unemployed would rise. In this case, the wage level would have to be raised in order to prevent laziness. In other words, wages would rise. The same result is obtained in the above-mentioned Blanchard and Diamond (1994) and other theoretical research.

This has also been confirmed by a number of empirical studies (Machin and Manning 1999). It is also consistent with the relationship between the rise in the incidence of long-term unemployment and a shift in the Phillips curve observed in the USA during the post-Lehman recession (Krueger, Cramer, and Cho 2014). In other words, the fact that wages rise with no impact from long-term unemployment on wage decisions makes it even more difficult for the long-term unemployed to exit from unemployment.

2. Long-Term Unemployment and the Persistence of Unemployment

Long-term unemployment is also related to the persistence of unemployment. For example, even if the effect of the ranking rule is not so great in a steady state, it can grow larger in the short term. In particular, if there is negative duration dependency of the unemployment exit probability when the economy makes a sudden recovery, the employment probability of the short-term unemployed rises, leading to a rise in wages. This means that the long-term unemployed remain in a persistent state of unemployment (Blanchard and Diamond 1994). Again, as stated above, Pissarides (1992) used the search theory to show that thin market externality functions if the unemployed lose even a little of their skill during unemployment, and that short-term crises can lead to persistent unemployment.

3. Inequality

Unemployment means a loss of income. A high incidence of long-term unemployment shows that the burden of unemployment is concentrated among a small number of workers. This in turn shows that long-term unemployment contributes to a widening of income inequality.

If we are to consider the relationship with disparity in the strict sense, however, we need to focus not only on the long-term unemployed but also on workers who are in recurrent unemployment. To this end, we must use panel data to show to what extent unemployment periods are concentrated in a fixed proportion of workers within a fixed period of time. Machin and Manning (1999) analyze this using data from Germany, the UK and the USA in the 1990s. They suggest that periods of unemployment and non-employment tend to be concentrated in specific workers, and that this tendency is stronger in countries with a higher incidence of long-term unemployment.

4. Happiness

Unemployment has a negative impact on the happiness of the individual. This tendency can be seen even when income levels are kept the same (Ohtake 2004). But what

about long-term unemployment? A follow-up survey of unemployed Americans after the Lehman shock reported that, as the unemployment duration became protracted, the unemployed became dispirited and their unhappiness increased (Krueger and Mueller 2011). In particular, in responses related to job-hunting episodes, it became clear that prolonged unemployment duration has a strong tendency to increase unhappiness, and that life satisfaction is lower on days after spending significant time looking for work. They also point out that, if strenuous job-hunting efforts after long-term unemployment do not result in a job being found, the psychological cost of job-hunting seems to increase and this seems to discourage many unemployed.

VI. Conclusion

Seen over the long term, the incidence of long-term unemployment rose significantly in Western European countries between the second half of the 1970s and the 1980s, and in Japan since 1990s, before plateauing. It also rose to historical levels in the USA from 2008 onwards.

This paper has mainly surveyed theoretical literature on the mechanism behind the occurrence of long-term unemployment and the problems caused by long-term unemployment. The key points are as follows.

(i) A decrease in the unemployment exit probability causes a rise in the incidence of long-term unemployment, whatever the unemployment duration. Factors that cause the incidence of long-term unemployment to rise can be broadly divided into a decrease in the average exit probability from unemployment of all durations and a rise in the negative unemployment duration dependency of the exit probability.

(ii) Decreases in the average exit probability from unemployment of all durations are mostly caused by the same factors as increases in overall unemployment. Therefore, there is a strong correlation between the incidence of long-term unemployment and the unemployment rate. Many factors behind the occurrence of long-term unemployment are the same as those that cause overall unemployment to increase.

(iii) Factors behind the negative duration dependency of the exit probability may be summarized as those on the labor demand side, those on the labor supply side, and institutional factors. Of these, theories concerning factors on the labor demand side include (a) the screening hypothesis, whereby the exit probability of long-term unemployed decreases because unemployment duration is used as information showing a worker's ability, as a method of screening when there are heterogeneities among jobseekers, and (b) the hypothesis that the exit probability of long-term unemployed decreases because jobseekers with the shortest unemployment duration are chosen when there are no heterogeneities among jobseekers but there are multiple job applications for a job opening (the ranking rule).

(iv) Theories related to factors on the labor supply side include (a) the theory that, be-

cause workers' skills and willingness to work decrease during periods of unemployment, companies discriminate against long-term unemployed even if some unemployed workers invest in maintaining their skills during such periods, thereby reducing the exit probability of long-term unemployed, and (b) the hypothesis that, if the skills of unemployed workers decrease during a period of unemployment, persistent long-term unemployment occurs in times of short-term economic crisis, due to the externality of thin markets (i.e. markets with few job openings and little matching between job openings and jobseekers). It has also been pointed out that long-term unemployment is prone to occur because the loss of skills due to unemployment is particularly pronounced at times when structural changes occur in the economy.

(v) Institutional factors consist of the unemployment insurance system and employment protection legislation. Extending benefit duration in unemployment insurance systems has the effect of extending the unemployment duration. Meanwhile, increases in unemployment benefit levels reduce the exit probability of the short-term unemployed but increase the exit probability of benefit recipients approaching the end of their unemployment benefit period.

(vi) As problems caused by long-term unemployment, firstly, an increase in long-term unemployment has the effect of pushing up wages. An increase in long-term unemployment also has the effect of increasing the persistence of unemployment, and of widening income inequality. Finally, long-term unemployment significantly reduces the happiness level of the individual concerned.

In Japan, the incidence of long-term unemployment rose during the long recession after the collapse of the bubble economy, and has remained at a high level since then. The change among younger age groups is particularly pronounced. Discrimination against long-term unemployed by companies and practices such as the ranking rule, as part of Japan's system of employment, are thought to lie behind this.[3] Appropriate policy action based on further theoretical elucidation and empirical analysis of the mechanisms behind the occurrence of long-term unemployment is required.

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Long-Term Unemployment in Japan in the Global Financial Crisis and Recession

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This paper examines the trends in long-term unemployment (unemployment for six months or more) in Japan across the period around the global financial crisis of the late 2000s and the subsequent Great Recession. Using data from the Labour Force Survey and Employment Status Survey, both conducted by the Statistics Bureau, Ministry of Internal Affairs and Communications, it uses decomposition analysis to illustrate some factors that change the long-term unemployment rates.

While also shifting along with cyclical changes in the economy, the long-term unemployment rate and the share of long-term unemployed in the total unemployed have continued to rise over the last 30 years. From the mid-2000s, there was a large increase in the very long-term unemployed (people unemployed for over two years), accounting for more than a quarter of the total unemployed males in the mid-2010s. The decomposition analysis shows that the changes in the long-term unemployment rates are influenced to a large degree by the changes in the unemployment rate and the share of long-term unemployed in the total unemployed.

The long-term unemployment rates are high for male workers, young workers (age 15–24) and those whose highest level of education is high school or lower. The long-term unemployment rates are high in the three major metropolitan areas, while the share of long-term unemployed in the total number of unemployed is high in the rural areas.

I. Introduction

The objective of this paper is to identify the trends in long-term unemployment in Japan following the global financial crisis in the late 2000s, using data from the Labour Force Survey (LFS) and the Employment Status Survey (ESS), both conducted by the Statistics Bureau, Ministry of Internal Affairs and Communications.

Up until the early 1990s only a limited amount of analytical research was produced regarding the share of unemployed people in Japan who were unemployed long term, because the unemployment rate remained at a low level and it was difficult to ascertain the different types of unemployed people in detail with the statistics available.[1] However, from

[*] The analysis in this paper is based to some extent on the discussions conducted by the research group on "Theoretical Analysis of Unemployment Rates" (Japan Institute for Labour Policy and Training), in which I participated. As part of the above research group I received many informative comments from the other members. I would like to thank the late Akira Ono, Jiro Nakamura, Souichi Ohta, Naofumi Sakaguchi, Hirokazu Fujii, and Hiroshi Amari. Moreover, any errors in this paper are mine alone.

[1] As the level of the unemployment rate in Japan was low in comparison with other developed nations, research on unemployment in Japan particularly up until the early 1990s was largely focused on

the late 1990s through the 2000s the unemployment rate rose, reaching 5.4% (total for males and females) in 2002—the highest it had been in 50 years. This made it possible for data on the long-term unemployed to be extracted from data on the unemployed, allowing for a growing amount of research dealing specifically with the long-term unemployed.[2, 3]

The 2002 edition of the "White Paper on the Labour Economy" (Ministry of Health, Labour and Welfare 2002) attracted significant interest as it demonstrated that the number of long-term unemployed who had been without work for one year or more had quadrupled in the previous ten years. Using data collected from individual responses to the 2000 Special Survey of the Labour Force Survey (SSLFS), analysis developed by Genda et al. (2003) investigates the common attributes of middle-aged and older workers who tend to become long-term unemployed, focusing particularly on long-term unemployed males around 50 years of age (Genda et al. 2003, 190–210). Their analysis results show that workers who tend to become long-term unemployed have the following kinds of attributes: workers who graduated high school and university; previously worked in management, administration, or transportation and communications; previously worked in the manufacturing or service industry; and left their previous job due to the bankruptcy of a business location, dismissal, or personnel reductions.

In contrast, Seike et al. (1998, 85–122) produced somewhat different analysis results using data collected from the individual responses to the SSLFS from 1987 and 1992, drawing the conclusion that the characteristics of workers susceptible to long-term unemployment include: male, older age, low educational background, left employment for personal reasons, and married. It can be surmised that the differences between the results of Genda et al. (2003) and Seike et al. (1998) are largely due to the fact that the scopes of the workers analyzed were different, as well as the fact that the years for which data was analyzed are approximately 10 years apart. In other words, it is possible that the characteristics of the long-term unemployed differed between the period around 2000, when the number of long-term unemployed increased, and the period in the early 1990s in the midst of the pros-

examining why Japan's unemployment rate remained at a lower level than other developed countries (Brunello 1990; Hashimoto 1993; Rebick 2005).

[2] In addition to the research in Japanese which is addressed in this paper, research such as the OECD Employment Outlook provides annual figures for the percentage of long-term unemployed in Japan. Moreover, in its international comparison of long-term unemployment among youths (age 15–24), OECD (2009) notes that while the OECD average for the percentage of long-term unemployed decreased between 1997 through 2007, in Japan on the other hand it increased. Genda (2003) reveals that the older the age bracket, the higher the percentage of long-term unemployed; that from 1984 through 2001 this structure was stable; and that in all age groups, the percentage of long-term unemployed increased between 1984 through 2001.

[3] In addition to research on long-term unemployment itself, there is a significant amount of research in Japan on the effects of prolonged unemployment. A typical example of such research is the work that has been done to investigate whether or not factors such as increases in unemployment benefits and extensions of the period for which benefits can be received lead to an increase in the duration of unemployment. For example: Tachibanaki (1984), Otake (1987), Okusa (2002), Kohara (2002), and Kohara, Sasaki, and Machikita (2013).

perity of Japan's bubble economy.

JILPT (2006) reveals the characteristics of the long-term unemployed on the basis of data collected by distributing survey questionnaires to long-term unemployed who visited two "Hello Work" offices (public employment services centers) in the Tokyo Metropolitan area between December 2004 and March 2005. From the data collected, the JILPT observed a number of characteristics common to the long-term unemployed, including that many had repeatedly changed their employment, and that many had switched to employment with a smaller-scale firm or changed to an employment type other than regular employment when re-entering employment after leaving employment with the company they had worked for the longest period, placing them in a position in which they were more likely to leave or lose their employment in a period of recession. Using data from an online survey which followed-up on non-regular workers over a two-year period, Kume and Tsuru (2013) demonstrate that in the case of unemployed non-regular workers, the proportion of people who wished to find work as a regular employee was higher the longer the duration of unemployment. A special feature for the July 2004 edition of the Japanese Journal of Labour Studies also addresses the topic of long-term unemployment, including research introducing measures to tackle long-term unemployment in Europe (Yugami 2004) and review of the relationship between the number of days for which unemployment insurance benefits are paid and the incentive to re-enter employment (Kohara 2004). The arguments raised in Shinozaki (2004)—which was published in the same edition—form the basis for the analysis pursued in this paper, which seeks to ascertain the trends in long-term unemployment around the late 2000s global financial crisis and the subsequent period.

The analysis in Shinozaki (2004) verifies the trends in long-term unemployment from the 1980s to the early 2000s, using information such as published data from the Special Survey of the Labour Force Survey (SSLFS) and the Labour Force Survey (Detailed Tabulation) (LFSDT) up until 2004, and the Employment Status Survey (ESS) of 2002. The analysis shows that from the early 1990s through the 2000s, the number of long-term unemployed increased, reaching 1.12 million people in the first quarter of 2004, and the proportion accounted for by the long-term unemployed within the total number of unemployed and the long-term unemployment rate (=long-term unemployed/labor force) rose consistently throughout the period.

However, not even the basic points have been sufficiently identified concerning the trends in long-term unemployment in the periods which followed, including the period of economic recovery in the mid-2000s, the financial crisis in the late-2000s, and the Great Recession period which followed the financial crisis. The main objective of this paper is therefore to reexamine the trends in long-term unemployment using new data concerning long-term unemployment from the period up to the early 2010s.

The analysis in this paper uses the same framework as Shinozaki (2004). At the same time, the basis of analysis differs in that while in Shinozaki (2004) "long-term unemployed"

was defined as people who have been unemployed for a period[4] of one year or more, in this paper long-term unemployed is defined as people who have been unemployed for a period of six months or more. The slightly broader definition of long-term unemployment adopted here is in light of the development of unemployment countermeasures aimed at people who have unemployed for six months of more. Such measures include initiatives adopted in Europe from the 1990s onward which provide job-seeking support to people who have been out of work for six months or more based on the premise that the longer jobseekers remain in unemployment, the more they lose the relevant skills for their occupation[5] (ILO 2014, 12), making it increasingly difficult for them to return to employment (Yugami 2004). The analysis of long-term unemployment trends in this paper therefore also reflects the trends among jobseekers who are at a stage where they are beginning to have difficulty to make the transition from being unemployed to being employed.

The outline of the analysis of in this paper is as follows. Firstly, the trends in the long-term unemployment rate from the 1980s up until the 2010s are identified in Section II. Section III then examines the factors behind the shifts in the long-term unemployment rate by age and educational background. The changes in the unemployment rate are then investigated in the context of regional trends in Section IV, followed by the conclusion in Section V.

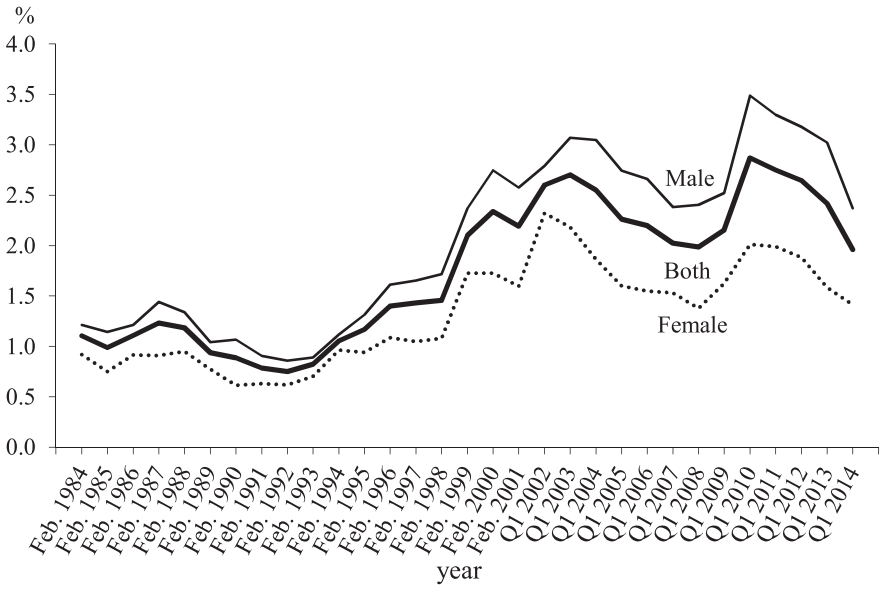
II. Trends of Long-Term Unemployment in Japan

This section identifies the developments in the long-term unemployment rate (unemployed for six months or more/labor force) from the 1980s to the 2010s. For 2002 onward, the developments in the long-term unemployment rate are examined in more detail using quarterly data.

Figure 1 shows the long-term unemployment rate from 1984 to 2014, calculated from the Special Survey of the Labour Force Survey (SSLFS) and the Labour Force Survey

[4] The unemployment periods referred to in this paper are the uncompleted spells of unemployment as provided in sources such as the Labour Force Survey (Detailed Tabulation). In contrast, the period from the point which a worker becomes unemployed to the point when they re-enter employment is referred to as the completed spells of unemployment. In certain hypotheses, the completed spells of unemployment is double the uncompleted spells of unemployment (Akerlof and Main 1981).

[5] A number of experimental studies using fabricated curriculum vitae indicate the possibility that the duration of unemployment itself acts as a signal of an unemployed person's potential productivity, which is unobservable. For example, Kroft, Lange, and Notowidigdo (2013) created and sent to companies approximately 12,000 curriculum vitae including different periods of unemployment between one month and 36 months, and calculated the likelihood of applicants being called to interview. Even when the differences between the unemployed people which were unobservable by the researchers were taken into consideration, the results showed trends such as: the longer the period of unemployment, the more the likelihood of being called to interview decreased, the decrease in the likelihood stops when the period of unemployed exceeds eight months, and the likelihood of people who have been unemployed for eight months being called to interview is 45% lower in comparison of that of people who have been unemployed for one month.



Source: Author's calculation from the Special Survey of the *Labour Force Survey* until Feb. 2001 and the *Labour Force Survey* (Detailed Tabulation) from 2002 Q1.

Notes: 1. The long-term unemployment rate is defined as the share of the labor force that has been unemployed for 6 months or more.

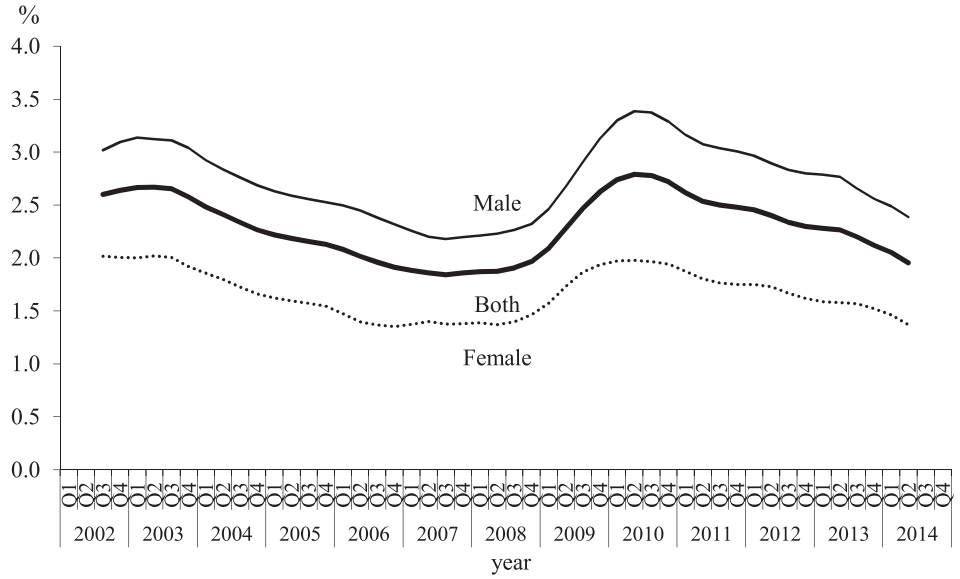
2. The data are not seasonally adjusted because data on unemployment duration for periods longer than 6 months are only available on a non-seasonally adjusted basis.
3. The data for 2011 Q1 does not include data for three prefectures (Iwate, Miyagi and Fukushima) where the Labour Force Survey was temporarily suspended as a result of the Great East Japan earthquake.

Figure 1. Long-Term Unemployment Rates

(Detailed Tabulation) (LFSDT). Up until the beginning of the 1990s, the long-term unemployment rate remained at around 1%, but from the collapse of the bubble economy onward, it continuously increased, rising to 3.0% for males and 2.3% for females in the early 2000s. In the gradual economic recovery which followed, the long-term unemployment rate dropped to 2.4% for males and 1.4% for females, but following the Great Recession in the late 2000s it increased once again, rising to 3.5% for males and 2.0% for females in around 2010. In the period up to the mid-2010s, the long-term unemployment rate for both men and women has decreased, falling to 2.4% for men and 1.4% for women in 2014.

The separate lines for males and females in Figure 1 show that the male long-term unemployment rate constantly exceeds that of females. As the scale of long-term unemployment and presumably also the factors leading to long-term unemployment differ between males and females, results are presented separately for males and females in a number of the following points of analysis in this paper.

In order to identify trends in the long-term unemployment rate around the time of the



Source: Author's calculation from the *Labour Force Survey* (Detailed Tabulation).

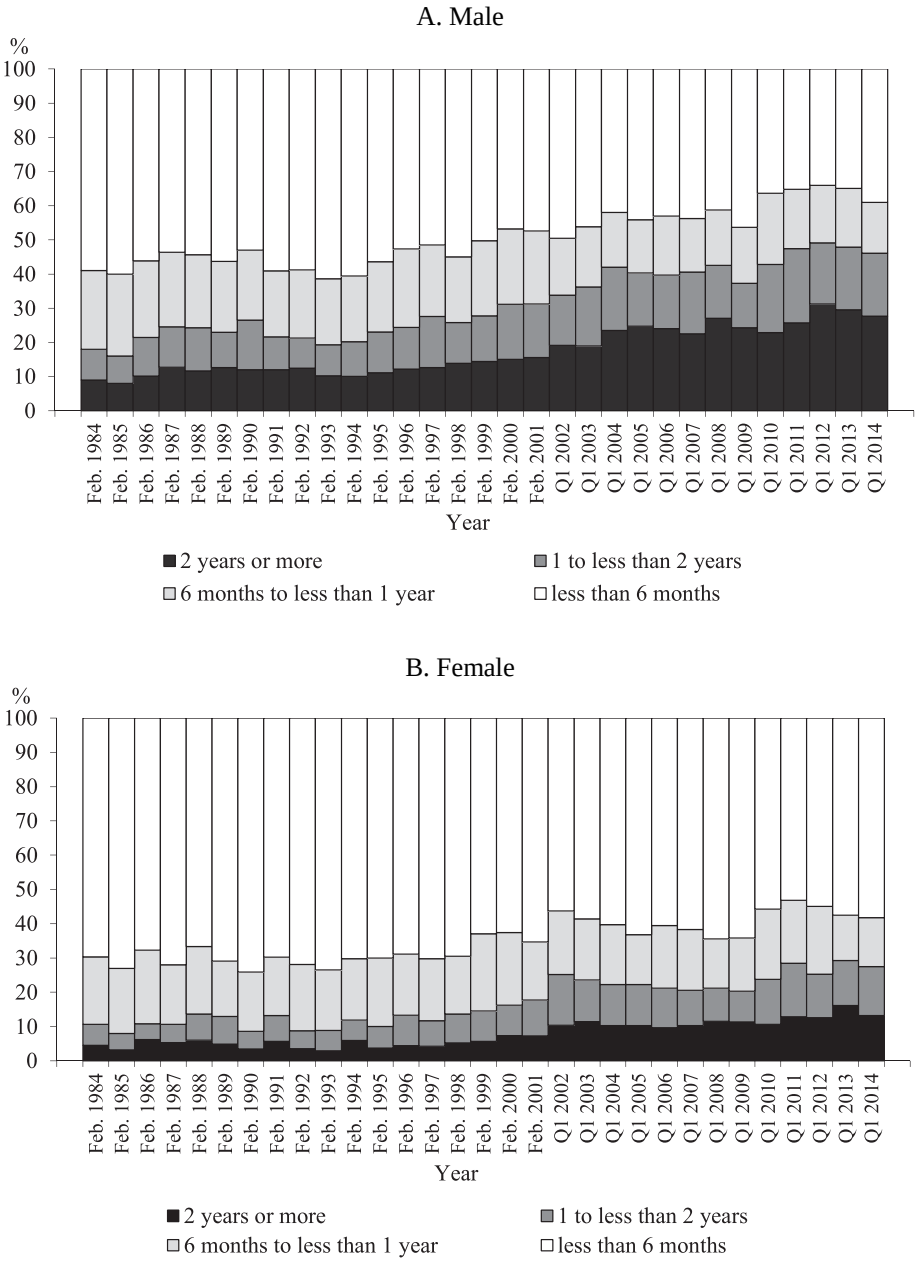
Note: Values represent five-quarter centered moving average. The five-quarter centered moving average of the long-term unemployment rate at time t ($LTUR_{CMA, t}$) is calculated as follows: $LTUR_{CMA, t} = (0.5LTUR_{t+2} + LTUR_{t+1} + LTUR_t + LTUR_{t-1} + 0.5LTUR_{t-2}) / 4$. See notes to Figure 1 for more information.

Figure 2. Long-Term Unemployment Rates (Quarterly Data from 2002)

Great Recession in detail, Figure 2 uses quarterly data from the LFSDT to show the long-term unemployment rate from 2002 onward.[6] The long-term unemployment rate decreased steadily between the first quarter of 2003 and the third quarter of 2007 for men and between the second quarter of 2003 and the fourth quarter of 2006 for women. Following this period, the long-term unemployment rate rose, peaking at 3.4% for men in the second quarter of 2010, and at 2.0% for women in the same quarter. After reaching its peak, the long-term unemployment rate decreased until the second quarter of 2014, at the same pace as during the period from the turn of the century to the mid-2000s.

Figure 3 shows the percentages of unemployed people by duration of unemployment. Looking at Panel A, the proportion of males who were unemployed for six months or more increased in the mid-to-long term, and in the first quarter of 2014, approximately 60% of the total number of unemployed males were long-term unemployed. Up until the early 2000s, the proportion of males who had been unemployed for six months to less than one

[6] Of the LFSDT quarterly data regarding long-term unemployment, it is only possible to use values which have not been seasonally adjusted. In order to exclude seasonal variation and irregular variation from the lines plotted and extract only the trend-cycle components, the five-quarter centered moving average value was calculated from the values which have not been seasonally adjusted and shown in Figure 2. In the figures below, where LFSDT quarterly data concerning long-term unemployment is used, the figures use the five-quarter centered moving average, as in Figure 2.



Source: See source to Figure 1.
Note: See notes to Figure 1.

Figure 3. Share of the Unemployed by Duration

year remained higher than the proportion of males who had been unemployed for one year to less than two years, and the proportion of males who had been unemployed for two years or more. However, since the mid-2000s, there has been an increase in the proportion of males who have been in unemployment for two years or more—referred to in OECD (2012) as "very long-term unemployment." In 2014, around 25% of unemployed males had been out of work for two years or more.

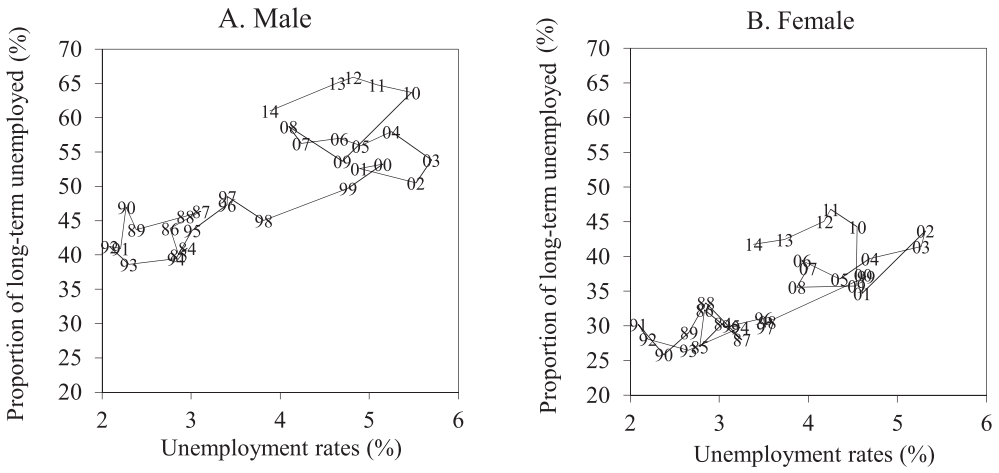
The graph for females in Panel B shows that, as in the case of males, the proportion of unemployed who were out of work for six months or more tended to increase in the mid-to-long term. At the same time, the proportion of female long-term unemployed is lower than that of males, with figures such as approximately 40% in 2014. Moreover, throughout the 1990s and the 2000s, the highest proportion was occupied by the unemployed who had been out of work for six months to less than one year. The proportion of females who have been unemployed for a duration of two years or more is increasing, but is still around half of that of males, at around 13% in 2014.

The long-term unemployment rate (unemployed for six months or more/labor force) is expressed as the product of the proportion accounted for by long-term unemployed among the total number of unemployed people (unemployed for six months or more/unemployed) and the unemployment rate (unemployed/labor force). Let us examine the relationship between the long-term unemployment rate, the proportion of long-term unemployed, and the unemployment rate.

Machin and Manning (1999) investigate the relationship between the proportion of long-term unemployed and the unemployment rate in the major OECD countries. They show that for many countries plotting the chronological developments with the unemployment rate on the x-axis and the proportion of long-term unemployed on the y-axis creates a counter-clockwise curve.

They explain the background which creates such a counter-clockwise curve using two factors: the inflow into the unemployment pool, and the outflow out of the unemployment pool. Firstly, when economic recession begins, there is an increase in employment loss and in turn a rise in the number of people flowing into the unemployment pool, and therefore the unemployment rate and the proportion of short-term unemployed both increase, leading to a decrease in the proportion of long-term unemployed. As the outflow of long-term unemployed from the unemployment pool decreases in periods of economic recession, when economic recession continues for a long period, it also leads to an increase in the proportion of long-term unemployed along with the increase in the unemployment rate.

In periods of economic recovery, employment creation increases, leading to a decrease in the inflow into the unemployment pool. In addition to this, there is an increase in the numbers of people flowing out of the unemployment pool and into the employment pool, but as companies choose to employ the short-term unemployed rather than the long-term unemployed (as demonstrated by examples such as the ranking model of Blanchard and Diamond [1994]), the long-term unemployed find it difficult to get out of the



Source: See source to Figure 1.

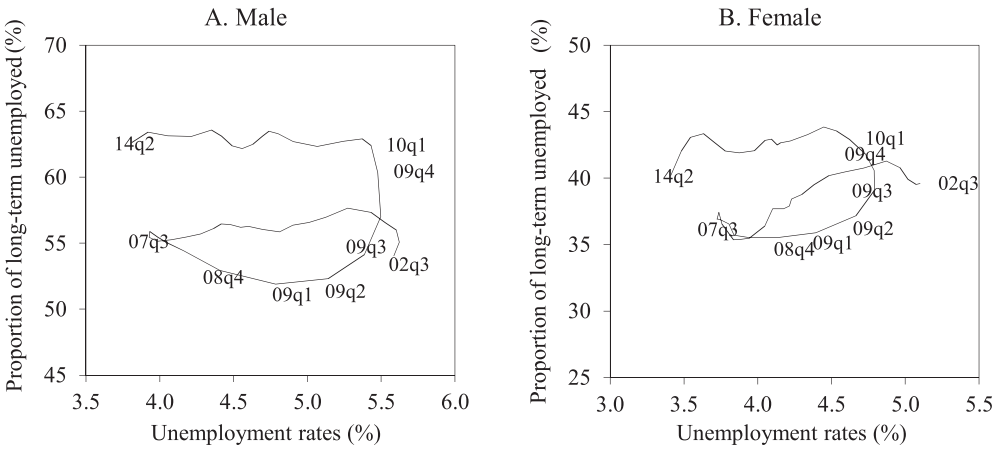
Note: The proportion of long-term unemployed is defined as the share of the total number of unemployed that has been unemployed for 6 months or more. See notes to Figure 1 for more information.

Figure 4. The Incidence of Long-Term Unemployment and the Unemployment Rate

unemployment pool. Therefore, while the unemployment rate decreases, the proportion of long-term unemployed increases. When economic recovery continues for a long period, the long-term unemployed also gain opportunities to leave the unemployment pool, leading to both a decrease in the unemployment rate and a decrease in the proportion of long-term unemployed.

The analysis of Machin and Manning (1999) includes a figure demonstrating the developments in Japan from the beginning of the 1980s to 1996, which shows the same counter-clockwise curve as seen for other countries. Figure 4 shows Machin and Manning's figure extended up to 2014. Looking at the graph for males in Panel A, we can see a counter-clockwise curve for the period from around 1984 to 1995. However, the period following this up until around the year 2000 shows a line rising upward to the right, a significantly different shape from the curve up until that point. From around 2001 to 2007, there is yet again a counter-clockwise curve, but from 2008 onward there is a curve higher up, breaking away from the curve in the mid-2000s.

While it is not as clear as in the graph for males, the graph for females in Panel B shows that there is a counter-clockwise relationship between the proportion of long-term unemployed and the rate of long-term unemployment. It can be seen that for both males and females, there is a large jump in the proportion of long-term unemployed and the unemployment rate through the latter half and the end of the 1990s, and even in the 2010s these figures have not returned to the levels of the 1990s. Moreover, as noted by Machin and Manning (1999), in the long term there is a positive correlation between the proportion of



Source: See source to Figure 2.

Notes: 1. The proportion of long-term unemployed is defined as the share of the total number of unemployed that has been unemployed for 6 months or more.

2. Values represent five-quarter centered moving average. See notes to Figure 1 and Figure 2 for more information.

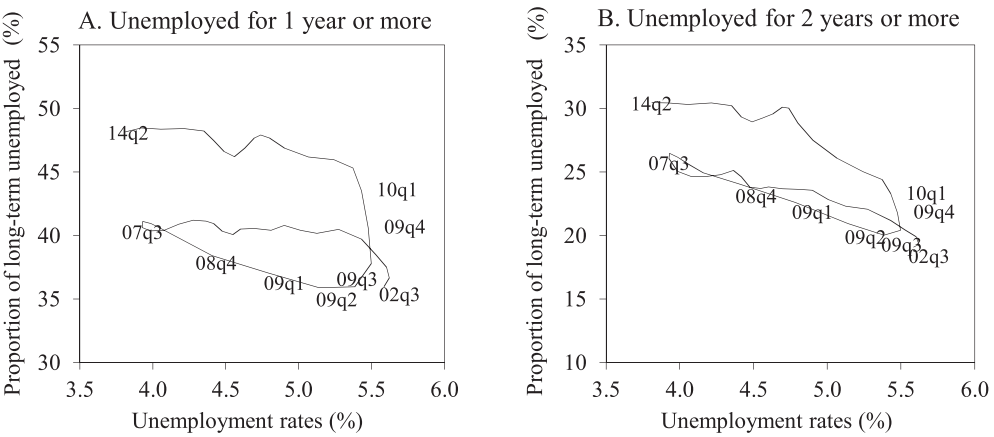
Figure 5. The Incidence of Long-Term Unemployment and the Unemployment Rate (Quarterly Data from 2002)

long-term unemployed and the unemployment rate.

Figure 5 uses quarterly data to demonstrate the relationship between the proportion of long-term unemployed and the unemployment rate from 2002 onward. While Figure 4 shows a significant jump towards the upper right for males and upward for females through 2009 and 2010, Figure 5 shows the curved line expanding significantly toward the lower right from the second quarter through the fourth quarter of 2009, demonstrating that there was a counter-clockwise trend as explained by Machin and Manning (1999).

When considering employment policies aimed at the long-term unemployed, it is important to confirm whether or not there is a simultaneous decrease in both the unemployment rate and the proportion of long-term unemployed in the latter stages of periods of economic recovery. Figure 5 shows that during the period of economic recovery from 2003 to 2007, both the unemployment rate and the proportion of long-term unemployed decreased, implying that along with economic recovery there is also demand for the long-term unemployed to enter work (particularly in the case of females). Even if there was a skills ranking, the difference in skills between short-term unemployed and long-term unemployed is not significant, and therefore it is possible to suggest that as economic recovery continued for an increasingly longer period, a demand for the long-term unemployed to enter work arose.

In the period of economic recovery from 2010 to 2014 on the other hand, while the unemployment rate decreased, there was only a limited decrease in the proportion of



Source: See source to Figure 2.

Notes: 1. The proportion of long-term unemployed is defined as the share of the total number of unemployed that has been unemployed for 1 year or more (Panel A) and for 2 years or more (Panel B).

2. Values represent five-quarter centered moving average. See notes to Figure 1 and Figure 2 for more information.

Figure 6. The Incidence of Long-Term Unemployment and the Unemployment Rate (Male, Quarterly Data from 2002)

long-term unemployed. Particularly in the case of males, the proportion of long-term unemployed hardly decreased at all during this period of economic recovery. It is possible that the difference in skills between the short-term unemployed and the long term unemployed increased slightly, and companies had a greater tendency to prefer to employ short-term unemployed than in the period of economic recovery from 2003 to 2007.

At the same time, as the fact that the proportion of long-term unemployed did not decrease means that there is no difference between the short-term unemployed and the long-term unemployed in terms of the likelihood of leaving the unemployment pool, even if there is a difference in skills between short-term unemployed and long-term unemployed, it is probably small. Although this might be taken to suggest that it is not particularly necessary to consider measures aimed at improving the skills of the long-term unemployed, such as education and training, Figure 6 shows that this is not the case. For Figure 6 the definition of long-term unemployed was changed from persons in unemployment for six months or more, to persons in unemployment for one year or more and persons in unemployment for two years or more, and the proportion of long-term employed was calculated for each of the two new definitions. The relationship between the proportion of long-term unemployed and the unemployment rate was then plotted for each definition. The resulting graphs show that while the unemployment rate decreased in the two periods of economic recovery from 2003 to 2007 and 2010 to 2014, the proportion of long-term unemployed increased. In other

words, there is a difference in the likelihood of leaving the unemployment pool between people who have been unemployed for one year or more and other unemployed people, and for people who have been unemployed for one year or more the likelihood of getting out of the unemployment pool is low. Figure 6 indicates that there is a difference in the skills and abilities of people who have been unemployed for a short-term period and people who have been unemployed for one year or more and that the difference in skills increases the longer the period of unemployment becomes. It can be surmised that there is a high necessity to consider special measures such as education and training for long-term unemployed who have been unemployed for one year or more (OECD 2012).[7]

III. Factors behind the Rise in Long-Term Unemployment

This section focusses on the shifts in the long-term unemployment rate that were identified in the previous section, examining the factors affecting these shifts by age and highest level of education, with a particular focus on long-term unemployment before and after the global financial crisis. As in the previous section, the trends are looked at separately for males and females.

Table 1 shows the proportion of long-term unemployed and the long-term unemployment rate by age. In 2007, before the financial crisis, the groups with the highest proportions of long-term unemployed were males age 35–44 and females age 45–54. When the financial crisis occurred, the proportion of long-term unemployed rose in the 15–24, 25–34, 45–54 age groups for men, and the 15–24, 25–34, and 55–64 age groups for women. Following the financial crisis, up to and through 2013, the proportion of long-term unemployed decreased in many groups, but in the 35–44, 55–64, and 65 or above age groups for males, and the 25–34, 45–54, and 65 and above age groups for females, the proportion of long-term unemployed increased.

The long-term unemployment rate tends to be higher the younger the age group, for both males and females. The high long-term unemployment rates in the young age group (age 15–24) can be explained by the positive correlation between the unemployment rate

[7] There is significant interest in whether or not it is necessary to consider long-term unemployment and short-term unemployment separately, not only from the point of view of considering employment policies, but also financial policies. Let us say that at present employers view the long-term unemployed as different to the short-term unemployed, and while there is a demand for the short-term unemployed, there is not a demand for the long-term unemployed. In this case, it is possible that when along with economic recovery the number of short-term unemployed decreases and it is difficult to fulfil the lack of personnel, employers may try to fulfil the lack of personnel by offering workers high wages. This eventually leads to a rise in the rate of inflation. On the other hand, if employers do not view long-term unemployed as different to short-term unemployed, when along with economic recovery the number of short-term unemployed decreases and it is difficult to fulfil the lack of personnel, this will lead to a labor demand for the long-term unemployed, avoiding increases in wages and avoiding an increase in the inflation rate. Kiley (2014) argues that the negative influence on the inflation rate is the same for both short-term and long-term unemployment.

Table 1. Proportion of Long-Term Unemployed and Long-Term Unemployment Rates by Age Group

	Male			Female		
	2007	2010	2013	2007	2010	2013
Unemployed (Numbers in ten thousands)	154	207	162	103	127	103
Long-term Unemployed (Numbers in ten thousands)	83	125	100	38	53	43
Proportion of long-term unemployed (%)						
Total	53.90	60.39	61.73	36.89	41.73	41.75
15−24	38.46	50.51	49.50	35.19	41.84	37.86
25−34	55.00	64.45	61.88	35.19	35.16	42.72
35−44	61.54	60.10	66.01	41.30	46.19	38.83
45−54	54.55	66.15	64.74	42.22	38.97	42.51
55−64	58.06	58.59	61.88	35.19	48.13	43.27
65 and older	55.56	60.10	63.01	0.00	51.14	67.31
Unemployment rates (%)	3.95	5.43	4.30	3.73	4.59	3.67
Long-term unemployment rates (%)						
Total	2.13	3.28	2.66	1.38	1.91	1.53
15−24	3.24	5.35	3.81	2.50	3.40	2.33
25−34	2.64	4.24	3.54	1.80	2.05	2.07
35−44	1.87	2.61	2.39	1.61	2.33	1.51
45−54	1.57	2.72	2.18	1.09	1.44	1.32
55−64	2.32	3.45	2.74	0.85	1.63	1.21
65 and older	1.40	2.13	1.73	0.00	0.47	0.80

Source: See source to Figure 2.

Notes: 1. The long-term unemployment rate was calculated after adjusting the figures such that the sum of the numbers of long-term unemployed for each age group matched the overall total of long-term unemployed. (The same applies to the numbers of unemployed and labor force figures.) Moreover, it is necessary to take care when interpreting the figures for females by age, as the original values upon which calculations were based are small.

2. The proportion of long-term unemployed is defined as the share of the total number of unemployed that has been unemployed for 6 months or more.
3. The long-term unemployment rate is defined as the share of the labor force that has been unemployed for 6 months or more.
4. Values represent annual averages.

and the long-term unemployment rate of each age group and the fact that the rate of unemployment is higher the younger the age group. There is an exception in that the long-term unemployment rate for males in the 54-64 age group is high, but this can be explained by the fact that the unemployment rate in this age group is high as there are many cases of people who have reached mandatory retirement age and are looking for opportunities to enter employment again.[8]

[8] In Japan, the age from which it is possible to begin receiving payments of basic old-age pension

The increase in the proportion of long-term unemployed and the rate of long-term unemployment in a certain group in turn leads to an increase in the overall long-term unemployment rate. At the same time, as there are differences in the size of the labor force of each group, the extent to which the overall long-term unemployment rate is affected differs. The decomposition analysis below was conducted in order to investigate to what extent an increase in the long-term unemployment rate, etc. in each of the groups affects the extent to which the overall long-term unemployment rate rises.[9] The overall long-term unemployment rate can be broken down into the following three terms:

$$R_t = \sum_i \left(w_{it} \cdot R_{it} \right) = \sum_i \left(w_{it} \cdot \frac{LTU_{it}}{U_{it}} \cdot \frac{U_{it}}{L_{it}} \right)$$

The long-term unemployment rate in period t (R_t) is equal to the sum of the share occupied by the labor force of each age group within the overall labor force (w_{it}) multiplied by the long-term unemployment rate of each age group (R_{it}). The long-term unemployment rate of each age group (R_{it}) can be further broken down into the product of the proportion occupied by long-term unemployed (LTU_{it}) within the number of unemployed people (U_{it}) in each age group (LTU_{it}/U_{it}) and the rate of unemployment of each age group (U_{it}/L_{it}). In other words, the overall long-term unemployment rate can be expressed as the labor force share, the proportion of long-term unemployed, and the rate of unemployment of each age group. The intertemporal change in the overall long-term unemployment rate, for example the difference in the change from period t to period $t+1$, ΔR ($=R_{t+1} - R_t$), can then be broken down into:

$$\Delta R = \sum_i \left(\Delta w_i \cdot \overline{\left(\frac{LTU_i}{U_i} \right)} \cdot \overline{\left(\frac{U_i}{L_i} \right)} \right) + \sum_i \left(\overline{w_i} \cdot \Delta \left(\frac{LTU_i}{U_i} \right) \cdot \overline{\left(\frac{U_i}{L_i} \right)} \right) + \sum_i \left(\overline{\left(w_i \cdot \frac{LTU_i}{U_i} \right)} \cdot \Delta \left(\frac{U_i}{L_i} \right) \right)$$

was raised in stages from 60 to 65 between 2001 and 2013. Moreover, the revised Act on Stabilization of Employment of Elderly Persons, which came into effect in 2006, imposes on companies the obligation to introduce measures to secure the employment of older people between the ages of 60 and 65. For these reasons, it is thought that older people between the ages of 60 to 65 are making more active efforts to look for employment than was the case in the past.

[9] The 2012 edition of the White Paper on the Labour Economy includes a simple decomposition analysis regarding the rises in the length of periods of unemployment (Ministry of Health, Labour and Welfare 2012). It shows that in the 1990s the effect of the increase in the average period of unemployment of people in the young age bracket (age 15–24) was significant, while in the 2000s there was a more significant effect from the increase in the average period of unemployment for an older age bracket, the prime-age bracket (age 25–54).

Here Δ is an operator which expresses the difference in the change in the variable of interest from the *t* period to the *t+1* period, and the overline, $\bar{(\ )}$, represents the mean of the variable of interest in the *t* period and *t+1* period. Therefore the first term in the right-hand side of the upper equation expresses the effect of the change in the labor force share of each age group on the overall long-term unemployment rate, the second term expresses the effect of the change in the proportion of long-term unemployed of each group on the overall long-term unemployment rate, and the third term expresses the effect of the change in the unemployment rate of each group on the overall long-term unemployment rate. The results of applying the decomposition formula above to the data for 2007—namely, prior to the financial crisis—and 2010 and 2013—after the financial crisis—are shown in Table 2.

Firstly, looking at the change from 2007 to 2010, three quarters of the increment in the overall long-term unemployment rate can be explained by the change in the unemployment rate. At the same time, the change in the proportion of long-term unemployed can also explain one quarter (males) to one third (females) of the increment in the long-term unemployment rate. While the effect of the labor force share is small, it has a negative effect on the change in the overall long-term unemployment rate.

Table 2 shows the contributions of each age group to the increment in the overall long-term unemployment rate. As noted above, three quarters of the increment in the overall long-term unemployment rate for males can be explained by the change in the unemployment rate. At the same time, if we look at the effect of the change in unemployment rate for males by age group, it can be seen that the contributions of the 25–34 and 55–64 age groups are large (both 0.22). The 25–34 age group also has a large contribution (0.11) to the effect of the rise in the proportion of long-term unemployed. These two effects in the 25–34 age group alone can explain just under 30% of the increment in the overall long-term unemployment rate. On the other hand, if we look at the effect of the change in the unemployment rate for females by age group, the effect of the 35–44 age group is large (0.11) and this effect alone explains one fifth of the increment in the overall long-term unemployment rate.

As seen in Table 1, for both males and females the long-term unemployment rate tends to be higher the younger the age group, but as the labor force share of the young age group (age 15–24) is small, its contribution is small. Moreover, in reflection of the decreasing birthrate and aging population, the labor force share of the young age group is gradually shrinking, and as a result, the effect of the labor force share is measured as negative. It can be seen that as the negative effect of the labor force share of the young age group is cancelled out by the positive effect of the labor force share in other groups, the overall effect of the labor force share is small.

The effect of the change in unemployment rate on the decrease in the overall long-term unemployment rate is also significant in the change from 2010 to 2013. For both males and females, it is possible to explain nearly all of the decrease in the overall long-term unemployment rate with the change in the unemployment rate. The effect of the proportion of long-term unemployed is small, consistent with the fact that the proportion of

Table 2. Decomposition of the Changes in Long-Term Unemployment Rates by Age Group

	Year			Change from 2007 to 2010				Change from 2010 to 2013			
				Delta	Change in LTUR due to:			Delta	Change in LTUR due to:		
	2007	2010	2013	07→10	Labor force share	Proportion of LTU	Unemploy-ment rate	10→13	Labor force share	Proportion of LTU	Unemploy-ment rate
Male											
Long-term unemployment rates (LTUR), Total (%)	2.13	3.28	2.66	1.15	-0.03	0.28	0.90	-0.62	-0.04	0.05	-0.64
Contributions by age											
15−24	0.26	0.38	0.26	0.13	-0.03	0.09	0.07	-0.12	-0.01	-0.01	-0.10
25−34	0.56	0.84	0.66	0.28	-0.05	0.11	0.22	-0.19	-0.05	-0.03	-0.10
35−44	0.41	0.61	0.58	0.20	0.03	-0.01	0.18	-0.04	0.02	0.06	-0.11
45−54	0.31	0.54	0.45	0.23	0.00	0.08	0.15	-0.09	0.02	-0.01	-0.10
55−64	0.46	0.69	0.53	0.23	0.00	0.01	0.22	-0.17	-0.03	0.03	-0.17
65 and older	0.13	0.20	0.18	0.08	0.01	0.01	0.06	-0.02	0.02	0.01	-0.05
Female											
Long-term unemployment rates (LTUR), Total (%)	1.38	1.91	1.53	0.54	-0.02	0.18	0.37	-0.38	-0.02	-0.01	-0.35
Contributions by age											
15−24	0.27	0.34	0.21	0.07	-0.02	0.05	0.04	-0.12	-0.02	-0.03	-0.08
25−34	0.38	0.41	0.39	0.03	-0.02	0.00	0.05	-0.02	-0.02	0.08	-0.08
35−44	0.34	0.53	0.36	0.18	0.02	0.05	0.11	-0.17	0.02	-0.08	-0.11
45−54	0.23	0.30	0.29	0.07	0.00	-0.02	0.09	-0.01	0.01	0.03	-0.05
55−64	0.15	0.30	0.21	0.15	0.00	0.07	0.07	-0.09	-0.01	-0.03	-0.05
65 and older	0.00	0.04	0.07	0.04	0.00	0.04	0.00	0.03	0.01	0.01	0.01

Source: See source to Figure 2.

Note: The contributions in each column do not total because of rounding. See notes to Table 1 for more information.

Table 3. Proportion of Long-Term Unemployed and Long-Term Unemployment Rates by Education

	Male			Female		
	2007	2010	2013	2007	2010	2013
Unemployed (Numbers in ten thousands)	149	198	157	100	121	100
Long-term Unemployed (Numbers in ten thousands)	82	122	97	37	51	41
Proportion of long-term unemployed (%)						
Total	55.03	61.62	61.78	37.00	42.15	41.00
Primary school, junior or senior high school	56.84	62.69	62.65	40.63	44.31	43.43
Junior college	43.68	60.00	61.75	32.00	38.49	37.96
College, university or graduate school	54.14	59.09	59.59	27.27	38.49	36.61
Unemployment rates (%)	3.97	5.40	4.35	3.78	4.58	3.74
Long-term unemployment rates (%)						
Total	2.19	3.33	2.69	1.40	1.93	1.53
Primary school, junior or senior high school	2.62	4.05	3.20	1.62	2.25	1.78
Junior college	1.66	3.08	2.74	1.18	1.60	1.35
College, university or graduate school	1.51	2.16	1.86	0.82	1.36	1.09

*Sourc*e: See source to Figure 2.
Note: Figures include graduates only. See notes to Table 1 for more information.

long-term unemployed remained at a high level in the 2010s, as shown in Figure 3. At the same time, if we look at the results separately by age group, it can be seen that there is a mixture of groups for which the effect of the proportion of long-term unemployed is positive and groups for which the effect of the proportion of long-term unemployed is negative. As these positive and negative effects offset each other, the overall effect of the proportion of long-term unemployed is small.

Table 3 shows the proportion of long-term unemployed and the long-term unemployment rate by education, namely, the highest level of education completed by survey respondents. As the figures in Table 3 do not include people who were in education at the time the data was taken, it is important to note that, for example, the numbers of unemployed people do not correspond with Table 1. For both males and females, the group whose highest level of education is high school or below has the highest proportion of long-term unemployed throughout the period surrounding the financial crisis. At the same time, in the case of males, following the financial crisis the proportion of long-term unemployed in the group whose highest level of education is high school or lower decreased, while the proportions of long-term unemployed in the groups whose highest levels of education are junior college or university or above have increased gradually.

For both males and females, the trend is that the long-term unemployment rates are higher for the group whose highest level of education is high school or lower. In comparison

with the other groups, the group whose highest level of education is high school or lower has both high unemployment rates and high proportions of long-term unemployed, and as a result the long-term unemployment rates are high.

Table 4 uses the same method as used in Table 2 to show the results of breaking down the increment in the overall long-term unemployment rate into the effect of the change in the labor force share, the effect of the change in the proportion of long-term unemployed, and the effect of the change in the unemployment rate. As in Table 2, the change in the unemployment rate has a large effect on the overall long-term unemployment rate. If we look at the effect of the change in unemployment rate by education group, the majority of that effect is caused by the group whose highest level of education is high school or lower. The high school or lower group also has a large contribution to the effect of the increase in the proportion of long-term unemployed from 2007 to 2010. These two effects in the high school or lower group alone explain approximately 70% of the increment in the overall long-term unemployment rate from 2007 to 2010. Therefore when long-term unemployment figures are examined from the perspective of educational background, it can be seen that the shifts in the overall long-term unemployment rate are significantly influenced by changes within the group with a low educational background.

IV. Long-Term Unemployment by Region

This section also looks at the factors behind the shifts in the long-term unemployment rate identified in Section II in terms of the trends in the different regions of Japan. It is not possible to use the region-specific data concerning long-term unemployment from the LFSDT which provided the basis of analysis up until the previous section. Instead, this section uses data from the ESS to analyze long-term unemployment by region.

When using ESS data, it is not possible to ascertain numbers of unemployed and long-term unemployed in the same way as in the LFSDT. This is because while the LFS asks respondents to provide information on their actual employment status in the last week of each month, the ESS asks for the "usual employment status" of respondents. The following method is therefore used here to attempt to ascertain the rate of long-term unemployment.

In the ESS, survey subjects are firstly divided into "people engaged in work" and "people not engaged in work," depending on whether or not they are usually in employment. People not engaged in work are also asked whether or not they wish to be engaged in work, and those who wish to be engaged in work are further divided into those who are currently seeking a job and those who are not currently seeking a job. If those people who are not engaged in work, wish to enter work, and are currently seeking a job are defined as "unemployed people," the unemployment rate based on the usual employment status can be calculated by taking the sum of the number of people engaged in work and the number of people seeking a job as the denominator, and the number of people seeking a job as the numerator.

Table 4. Decomposition of the Changes in Long-Term Unemployment Rates by Education

	Year			Change from 2007 to 2010				Change from 2010 to 2013			
				Delta	Change in LTUR due to:			Delta	Change in LTUR due to:		
	2007	2010	2013	07→10	Labor force share	Proportion of LTU	Unemploy-ment rate	10→13	Labor force share	Proportion of LTU	Unemploy-ment rate
Male											
Long-term unemployment rates (LTUR), Total (%)	2.19	3.33	2.69	1.14	-0.04	0.31	0.87	-0.64	-0.03	0.01	-0.62
Contributions by education											
Primary school, junior or senior high school	1.57	2.29	1.74	0.73	-0.10	0.19	0.64	-0.56	-0.09	0.00	-0.47
Junior college	0.16	0.33	0.31	0.17	0.02	0.07	0.07	-0.02	0.02	0.01	-0.05
College, university or graduate school	0.46	0.71	0.64	0.25	0.04	0.05	0.16	-0.07	0.04	0.01	-0.11
Female											
Long-term unemployment rates (LTUR), Total (%)	1.40	1.93	1.53	0.53	-0.03	0.22	0.34	-0.40	-0.02	-0.04	-0.34
Contributions by education											
Primary school, junior or senior high school	0.98	1.27	0.96	0.29	-0.08	0.10	0.27	-0.32	-0.05	-0.02	-0.24
Junior college	0.30	0.44	0.38	0.13	0.02	0.07	0.04	-0.05	0.02	-0.01	-0.06
College, university or graduate school	0.11	0.22	0.19	0.10	0.02	0.05	0.03	-0.03	0.02	-0.01	-0.04

Source: See source to Figure 2.

Notes: 1. The contributions in each column do not total because of rounding.

2. Figures include graduates only. See notes to Table 1 for more information.

As it is also possible to ascertain the different durations of time unemployed people have been looking for work, the long-term unemployment rate can be calculated by defining unemployed people who have been seeking a job for six months or more as "long-term unemployed" and dividing the number of long-term unemployed by the total number of people engaged in work and people seeking a job.

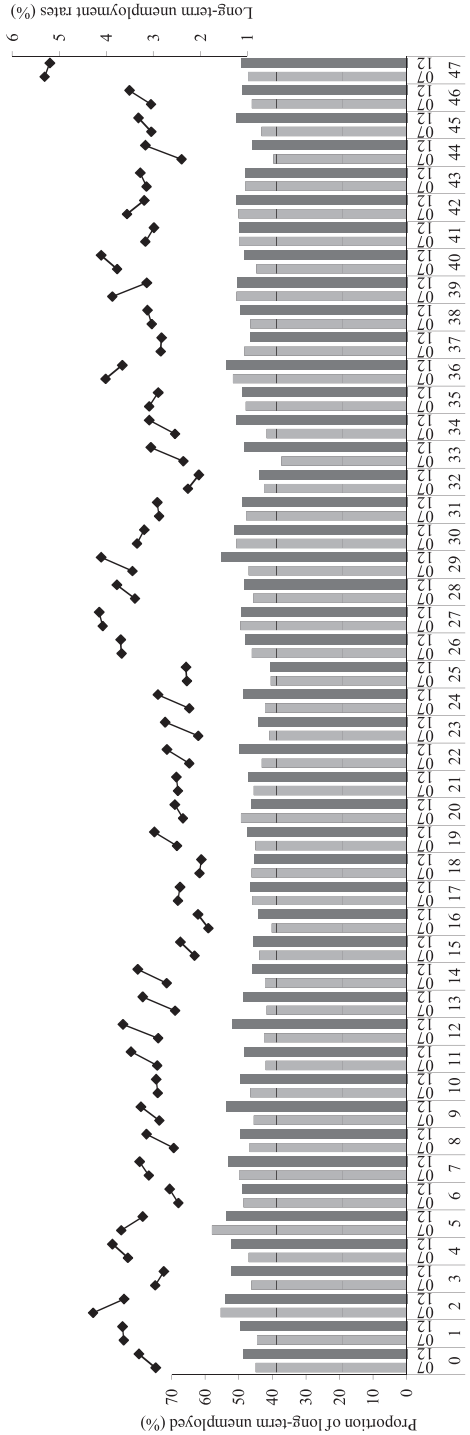
The long-term unemployment rate calculated with such a method can be described as the long-term unemployment rate reflecting the *usual* employment status. In contrast, the long-term unemployment rate calculated from the LFSDT is the long-term unemployment rate reflecting the *actual* employment status. It is not possible to compare the values for these two types of employment status, but within one statistic, it is, for example, possible to compare figures between different regions.

Using values based on usual employment status, Figure 7 shows the long-term unemployment rates and percentages of long-term unemployed in 2007 and 2012 for the 47 prefectures of Japan. From 2007 through 2012, there were a significant number of prefectures (30 prefectures) for which both the long-term unemployment rate and the proportion of long-term unemployed increased, but among the prefectures there were prefectures where one of the two decreased (11 prefectures), or both of the two decreased (6 prefectures). In other words, the prefectures across Japan are not all experiencing the same kinds of changes regarding long-term unemployment.

If we look more closely at Figure 7, many of the prefectures where either the long-term unemployment rate or the proportion of long-term unemployed decreased were prefectures in rural areas. On the other hand, in many of the prefectures in urban areas both the long-term unemployment rate and the proportion of long-term unemployed increased. The following analysis therefore divides the 47 prefectures into prefectures in the "three major metropolitan areas" (the Tokyo, Nagoya, and Osaka areas) and prefectures in "other areas"—namely, rural areas—and investigates the changes in the long-term unemployment rate and the proportion of long-term unemployed for each group.

Table 5 shows the long-term unemployment rates and proportions of long-term unemployed in 2002, 2007, and 2012 for the two region-based groups. The tendency is for the proportion of long-term unemployed to be higher in the rural areas than in the three major metropolitan areas. In reverse, the long-term unemployment rate tends to be higher in the three major metropolitan areas than in rural areas. This is observed as a relatively stable trend throughout the period. The higher long-term unemployment rate in the three major metropolitan areas is due to the fact that the unemployment rate in the three major metropolitan areas is higher than in the rural areas. In other words, in the three major metropolitan areas it is easier to become unemployed, while in the rural areas it is easier to find oneself out of work in the long term once one has become unemployed.

Table 6 shows the results of breaking down the increment in the nationwide long-term unemployment rate into the effect of the change in the labor force share, the effect of the change in the proportion of long-term unemployed, and the effect of the change in the



Source: Author's calculation from the *Employment Status Survey*.

Notes: 1. The proportion of long-term unemployed is calculated as follows: Proportion of long-term unemployed = (persons not engaged in work, who wish to work and have been seeking a job for more than six months) / (persons not engaged in work, who wish to work and are seeking a job).

2. The long-term unemployment rate is calculated as follows: Long-term unemployment rate = (persons not engaged in work, who wish to work and have been seeking a job for more than six months) / ([persons not engaged in work, who wish to work and are seeking a job] + [persons engaged in work]).

3. Prefecture codes are defined as follows: 0: Total, 1: Hokkaido, 2: Aomori, 3: Iwate, 4: Miyagi, 5: Akita, 6: Yamagata, 7: Fukushima, 8: Ibaraki, 9: Tochigi, 10: Gumma, 11: Saitama, 12: Chiba, 13: Tokyo, 14: Kanagawa, 15: Niigata, 16: Toyama, 17: Ishikawa, 18: Fukui, 19: Yamanashi, 20: Nagano, 21: Gifu, 22: Shizuoka, 23: Aichi, 24: Mie, 25: Shiga, 26: Kyoto, 27: Osaka, 28: Hyogo, 29: Nara, 30: Wakayama, 31: Tottori, 32: Shimane, 33: Okayama, 34: Hiroshima, 35: Yamaguchi, 36: Tokushima, 37: Kagawa, 38: Ehime, 39: Kochi, 40: Fukuoka, 41: Saga, 42: Nagasaki, 43: Kumamoto, 44: Oita, 45: Miyazaki, 46: Kagoshima, 47: Okinawa.

Figure 7. Long-Term Unemployment Rates and Incidence of Long-Term Unemployment by Prefecture

Table 5. Proportion of Long-Term Unemployed and Long-Term Unemployment Rates by Region

	Both sexes		
	2002	2007	2012
Unemployed (Numbers in ten thousands)	595	463	469
Long-term Unemployed (Numbers in ten thousands)	296	209	229
Proportion of long-term unemployed (%)			
Total	49.69	45.04	48.75
Three major metropolitan areas	48.69	43.98	48.26
Other areas	50.86	46.17	49.35
Unemployment rates (%)	8.39	6.56	6.79
Long-term unemployment rates (%)			
Total	4.17	2.95	3.31
Three major metropolitan areas	4.35	2.90	3.42
Other areas	3.98	3.01	3.18

Source: See source to Figure 7.

Notes: 1. The "unemployed" are defined as persons not engaged in work, who wish to work and are seeking a job.

2. The "long-term unemployed" are defined as persons not engaged in work who wish to work and have been seeking a job for more than six months.
3. The unemployment rate is calculated as follows: Unemployment rate = (persons not engaged in work, who wish to work and are seeking a job) / ([persons not engaged in work, who wish to work and are seeking a job] + [persons engaged in work]).
4. The three major metropolitan areas are the Tokyo (Saitama, Chiba, Tokyo, and Kanagawa), Nagoya (Gifu, Aichi, and Mie), and Osaka (Kyoto, Osaka, Hyogo, and Nara) metropolitan areas. See notes to Figure 7 for more information.

unemployment rate, using the same method as adopted in Table 2. Looking at effects on the nationwide long-term unemployment rate, the change in unemployment rate has a large effect on the change from 2002 to 2007. On the other hand, in the change from 2007 to 2012, the change in the proportion of long-term unemployed has a large effect. The small effect of the change in the unemployment rate on the change in the long-term unemployment rate from 2007 to 2012, is possibly due to the fact that the year of the ESS survey missed the peak (around 2010) of the changes in the number of long-term unemployed and it was not possible to accurately grasp the increases and decreases in the unemployment rate during this period.

Closer examination of each of the effects by region-based group shows that the effects in the three major metropolitan areas have a higher contribution than the effects in the rural areas. As the labor force share is almost the same in the three major metropolitan areas as it is in the rural areas, the difference between the regions may, for example, be reflecting the difference in the likelihood of leaving the unemployment pool. For example, in the decrease in the nationwide long-term unemployment rate from 2002 to 2007 the contribution

Table 6. Decomposition of the Changes in Long-Term Unemployment Rates by Region

	Year			Change from 2002 to 2007				Change from 2007 to 2012			
				Delta	Change in LTUR due to:			Delta	Change in LTUR due to:		
	2002	2007	2012	02→07	Labor force share	Proportion of LTU	Unemployment rate	07→12	Labor force share	Proportion of LTU	Unemployment rate
Male											
Long-term unemployment rates (LTUR), Total (%)	4.17	2.95	3.31	-1.21	0.00	-0.35	-0.86	0.36	0.00	0.25	0.10
Contributions by area											
Three major metropolitan areas	2.21	1.49	1.80	-0.71	0.03	-0.19	-0.55	0.30	0.03	0.15	0.12
Other areas	1.96	1.46	1.51	-0.50	-0.02	-0.16	-0.31	0.06	-0.03	0.10	-0.01

Source: See source to Figure 7.

Note: The contributions in each column do not total because of rounding. See notes to Figure 7 and Table 5 for more information.

of the three major metropolitan areas is significant, indicating that it is easier to get out of unemployment or long-term unemployment in the three major metropolitan areas than in comparison with the rural areas. Conversely, from 2007 to 2012 it is possible that workers were less likely to become unemployed in the rural areas in comparison with the three major metropolitan areas.

V. Conclusion

This paper used official statistics such as the Labour Force Survey (Detailed Tabulation) and the Employment Status Survey to examine the trends in the long-term unemployment rate across a period covering the global financial crisis of the late 2000s, including the trends before and after the crisis.

While the long-term unemployment rate shifts along with cyclical changes in the economy, it has continued to rise in the long-term. Moreover, the proportion occupied by the long-term unemployed among the total number of unemployed is also gradually growing in the long-term. Essentially, the change in the long-term unemployment rate is significantly influenced by changes in the unemployment rate and changes in the proportion of long-term unemployed.

Looking at certain different attributes of the long-term unemployed, the long-term unemployment rate tends to be high in the groups for males, people in the young age bracket (age 15–24), and people whose highest level of education is high school or lower. It can also be surmised that in rural areas there was a tendency for people to become stuck in long-term unemployment, because while the long-term unemployment rate is higher in the three major metropolitan areas than in rural areas, the proportion of long-term unemployed is higher in the rural areas than in the three major metropolitan areas.

It is not possible to make definitive statements regarding the potential changes in the long-term unemployment rate in the future, but it can be predicted that if a situation occurs in which the unemployment rate rises again before it has sufficiently decreased, the

long-term unemployment rate will increase rapidly. Moreover, in order to decrease the proportion of long-term unemployed, it will be necessary to improve measures to ensure that the long-term unemployed are able to leave the unemployment pool.

As described above, this analysis has revealed a number of points regarding the trends in the long-term unemployed. At the same time, the analysis was focused on the primary factors on the labor supply side—namely, concerning workers—and it was not possible to take into account the primary factors on the labor demand side—that is, employers. The task that remains is to investigate the relationship between long-term unemployment and the primary factors on the demand side, such as the development and spread of information and communications technology and changes in the conditions of international competition.

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Occupational Inheritance: Impact on Long-Term Worklessness and Unemployment, Human Networks, and Happiness

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In this paper, the author empirically examines the impact of occupational inheritance from father to son as a factor lying behind the increasing trend toward solitary long-term worklessness. SSM data reveal that rates of occupational inheritance have decreased since the war. JGSS data, meanwhile, show that inheritors (i) tend to become self-employed or business owners rather than non-regular workers, (ii) tend not to experience long-term worklessness or unemployment, (iii) have high levels of satisfaction with friendship and tend to feel a sense of attachment to their place of residence, and (iv) have low degrees of solitary long-term worklessness. The data also show, more generally, that (v) long-term worklessness and unemployment tend to break down human networks, (vi) experience of long-term unemployment has a negative effect on happiness later in life, although, in the case of men, the frequency of eating out with friends does not impact happiness, while in the case of women, happiness increases significantly when the frequency of eating out with friends increases, among other findings.

I. Introduction

Since the publication of Genda (2013)'s *Koritsu Mugyo (SNEP)* (Solitary Non-Employed Persons, referred to below as SNEPs), a number of books on this subject have appeared (Kudo and Nishida 2014; Sekimizu and Fujiwara 2013). The message shared by them all includes a sense of reality in sites of support at ground level. Namely, that it is difficult to make a good description, from an economical viewpoint (i.e. from a perspective that explains decision-making on the provision of labor in terms of rational human choices), of the situation of people who belong to the non-labor force over the long term; and that the current trend toward worklessness must be analyzed from a perspective that also takes into account the sociological perspective of whether they belong to communities based around friends outside family relationships, and whether they are maintaining or building human relationships (whether they retain social capital focused on human networks).

These data analysis and case studies paint a picture of a contemporary society in which having a job and having friendship and other social relationships are two sides of the same coin in social life; if one of them is damaged, it is harder to keep the other one in its normal form.

However, as Genda (2013) also points out, social science research on the relationship between this long-term unemployment or worklessness and social capital, and the elements that come to bear on these, has only just started.

Based on such a background, this paper will attempt an empirical investigation of

causes behind the increase in SNEPs and others, and the weakening of their connections (local ties, etc.) with other people (Tachibanaki 2010). This will be based primarily on empirical analysis of JGSS (Japanese General Social Survey) data on the impact of inheritance of the father's occupation, supported by secondary analysis of SSM (Social Stratification and Social Mobility Survey) data.

To preempt the conclusions drawn by this paper, the results obtained are that

- The proportion of sons (inheritors) choosing the same occupation[1] as their fathers decreased between the postwar period and around 2000.
- Inheritors tend to become self-employed or business owners rather than non-regular workers.
- Inheritors tend not to experience long-term worklessness or long-term unemployment.
- Inheritors have high levels of satisfaction with friendship and tend to feel a sense of attachment to their place of residence.
- Long-term worklessness and unemployment tend to break down human networks.
- Experience of long-term worklessness and unemployment has a negative effect on happiness later in life, although, in the case of men, the frequency of eating out with friends does not impact happiness, while in the case of women, happiness increases significantly when the frequency of eating out with friends increases.

As mentioned above, the data used in this paper are taken from JGSS and SSM surveys. As social science researchers have already produced numerous papers based on these two data sources, and given the lack of space available, descriptive statistics will be kept to the very minimum in this paper. Plenty of information on descriptive statistics and various papers using these data can be obtained from the JGSS Research Center at Osaka University of Commerce (http://jgss.daishodai.ac.jp/english/index.html), the Center for Social Research and Data Archives in the Institute of Social Science, University of Tokyo (http://csrda.iss.u-tokyo.ac.jp/en/), and the Osaka University "Social Research Database on Questionnaires" (http://srdq.hus.osaka-u.ac.jp/en/), among others. The reader is therefore referred to these for more detailed information.

It should be noted that, due to problems of sample selection related to the provision of labor, the analysis used in this paper will focus on men in all figures and tables, with the exception of the final Table 7. Also, the JGSS variables used in this paper are pooled from all survey years in which they are continuously surveyed (2000–2010, excluding 2004, 2007 and 2009).

Finally, it should also be noted that the definition of "worklessness" in this paper is a broader concept that includes "unemployment." While unemployment applies to those who were actively looking for work but had no job at the time of the survey, worklessness means that they had no job at the time of the survey, whether or not they were actively looking for

[1] In JGSS data, "Occupation" refers to the respondents' current job coded as xxjob and their fathers' jobs when the respondents themselves were aged 15, coded as ppjbxx15.

work. Therefore, worklessness has a broader meaning that includes unemployment.

II. Occupational Inheritance and Income: Past Trends and Present Situation

1. Occupational Inheritance and Income

In Sannabe (2014), data were pooled from the JGSS in 2000–2010 (except 2004, 2007 and 2009) to reveal a disparity between the annual incomes of inheritors and non-inheritors (inheritors have higher average incomes than non-inheritors). Inheritors are defined as men who, at the time of the survey, had the same occupation as their father had when they were aged 15, and non-inheritors as those who did not.[2]

These same definitions also apply when using the terms occupational inheritance, inheritors and occupational inheritance dummy in this paper. On measuring the ATE (Average Treatment Effect) of the effect of occupational inheritance in an all-male sample, based on the Doubly Robust Estimator,[3] a difference of around 500,000 yen in annual income has been measured. Besides this, estimates have also been made using the eldest son dummy and the number of siblings as instrumental variables.

On the other hand, in OLS analysis using SSM data (data at ten-year intervals from 1955 to 2005), the effect of the occupational inheritance dummy was only significantly positive in FY2005. Like JGSS, the SSM data use an occupational inheritance dummy variable to define inheritors and non-inheritors (a variable taking inheritors as 1 and non-inheritors as 0) as the explanatory variable and annual wage income as the explained variable. On conducting OLS analysis using JGSS data based on the same formulation, the occupational inheritance dummy again showed a positive effect.[4]

From the above results, it may be surmised that the higher income of inheritors could be a phenomenon that started after the beginning of the 2000s.

So why has this kind of phenomenon occurred?

Figure 1 shows chronological changes in the ratio of male non-regular workers to all male workers. As is well known, this ratio has risen dramatically since around the start of the 2000s. Ota (2010) revealed that, in around 2000, there was a significant decrease in so-called “good” jobs from young workers’ perspective, and low-income male non-regular workers increased. On the other hand, inheritors tend not to become non-regular workers. The relative wage levels of inheritors and non-inheritors are thought to have changed because the inheritors were spared this kind of impact. Here, multinomial logit analysis will be conducted to confirm this fact.

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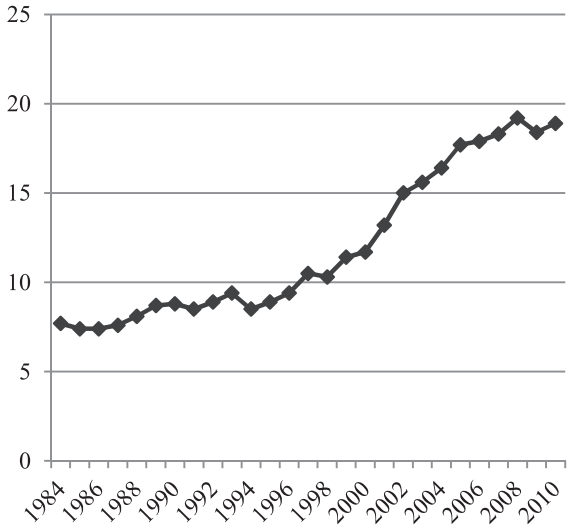
[2] When the SSM data include a question about the father’s main occupation, those data are used.

[3] Under this estimation method, it is known that a consistent estimator of cause and effect can be obtained if the formulation for either the covariates for calculating the propensity score or the explanatory variables that explain the outcome variable is correct (Bang and Robins 2005; Hoshino 2009).

[4] In the SSM data, OLS estimates are used because estimation based on the Doubly Robust Estimator is not possible due to the small sample size.



Source: Created by the author from *Labor Force Surveys*.

Figure 1. The Increase in Male Non-Regular Workers (%)

The explained variable shows the respondents' present employment format, classified as 1. Business owner or company officer, 2. Ordinary employee in full-time employment with no position title, ordinary employee in full-time employment with unknown position title, 3. Ordinary employee in full-time employment as foreman, team leader or group leader, ordinary employee in full-time employment as chief clerk or equivalent position, 4. Ordinary employee in full-time employment as section manager or equivalent position, ordinary employee in full-time employment as department manager or equivalent position, 5. Temporary worker, part-time or *arubaito* worker, temporary agency worker, home worker, and 6. Self-employed, freelancer or family business employee. The explanatory variable shows the occupational inheritance dummy and the father's employment format (categories are similar to those for the employment formats of the respondents shown above, with the addition of the two categories, "No occupation" and "No father").

Table 1 shows the result of this analysis. The sample is limited to men. The result shows that inheritors have a significant tendency to become business managers or self-employed, and not to become non-regular workers.

Non-regular workers tend to be the first to be dismissed or have their employment terminated in an economic downturn, and could be described as more prone to experiencing unemployment. Moreover, they must also be more exposed to the risk of prolonged periods of unemployment once they fall into that state, due to problems with their employment record, etc. These points are connected with the fact that inheritors tend not to experience long-term worklessness and unemployment, as discussed later.

A conceivable second reason why inheritors' wages are higher would be that inherited

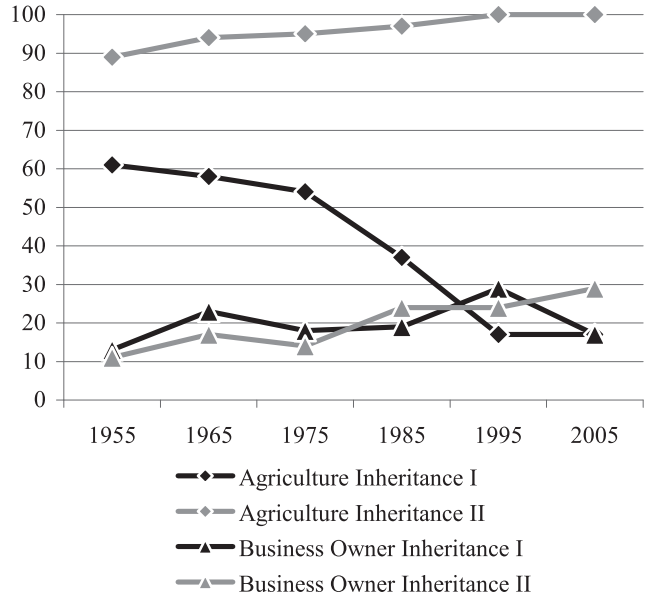
Table 1. The Impact of Occupational Inheritance and the Father's Employment Format on the Employment Format of the Son (Multinomial Logit)

	Business owner	Chief clerk class	Dept/Section manager class	Non-regular	Self-employed / Family business
Inheritance	1.009 ***	-0.245	-0.121	-0.950 **	2.320 ***
	(0.240)	(0.261)	(0.257)	(0.455)	(0.177)
Father:					
Business owner	2.282 ***	0.298	0.362	0.873 **	0.225
	(0.304)	(0.333)	(0.357)	(0.445)	(0.383)
Chief clerk class	-0.0617	0.736 ***	0.593 **	0.351	-0.391
	(0.349)	(0.210)	(0.230)	(0.328)	(0.360)
Dept/Section manager class	0.222	0.528 ***	0.805 ***	0.366	-0.283
	(0.291)	(0.204)	(0.202)	(0.327)	(0.323)
Non-regular	-0.117	0.430	-0.665	0.634	-0.132
	(0.734)	(0.417)	(0.625)	(0.569)	(0.607)
Self-employed / Family business	-0.0734	0.0929	-0.00376	0.0975	0.486 ***
	(0.197)	(0.142)	(0.155)	(0.183)	(0.160)
No occupation	-0.349	-1.434	0.405	-0.942	-0.299
	(0.896)	(1.113)	(0.554)	(0.931)	(0.648)
None	0.147	0.148	0.207	0.103	0.752 ***
	(0.306)	(0.244)	(0.253)	(0.278)	(0.229)
Dropout experience	0.775 **	-0.523	-0.980 **	-0.191	0.798 **
	(0.321)	(0.360)	(0.497)	(0.446)	(0.320)
Marriage	0.741 ***	0.892 ***	1.283 ***	-0.637 ***	0.233
	(0.270)	(0.173)	(0.231)	(0.164)	(0.177)
Age	0.104 ***	0.000506	0.0454 ***	0.0834 ***	0.0908 ***
	(0.00767)	(0.00462)	(0.00522)	(0.00767)	(0.00597)
University graduation	0.443 ***	0.113	0.614 ***	0.151	0.000989
	(0.167)	(0.129)	(0.133)	(0.191)	(0.149)
Annual income	0.00215 ***	0.00105 ***	0.00174 ***	-0.00218 ***	0.000654 ***
	(0.000185)	(0.000161)	(0.000161)	(0.000387)	(0.000193)
Large city	0.236	0.129	0.137	0.110	0.160
	(0.239)	(0.178)	(0.195)	(0.237)	(0.188)
Small city	0.188	-0.0244	0.168	0.0187	0.0485
	(0.184)	(0.141)	(0.151)	(0.180)	(0.141)
Constant	-9.531 ***	-2.542 ***	-5.942 ***	-4.011 ***	-6.512 ***
	(0.510)	(0.255)	(0.323)	(0.482)	(0.370)
Observations	3,248	3,248	3,248	3,248	3,248
Pseudo R2	0.191	0.191	0.191	0.191	0.191
Log likelihood	-4351	-4351	-4351	-4351	-4351

Notes: 1. Robust standard errors in parentheses.

2. The basis for the father's employment format and explained variables is the ordinary employee class.

*** p<0.01, ** p<0.05, * p<0.1.



Source: Created by the author using SSM data.

Figure 2. Change in Rates of Occupational Inheritance for Agriculture and Business Owners (%)

occupations (job types) have changed. While inheritance of less lucrative occupations has decreased, higher income occupations continue to be inherited as before, and the incomes are thus thought to have increased.

Figure 2 shows changes in the rate of occupational inheritance in business ownership and agriculture, forestry and fisheries, which are contrastive in terms of average income. Here, two rates of occupational inheritance need to be distinguished when considering problems of inheritance in terms of different occupations. In this paper, these two are called "Inheritance rate I" and "Inheritance rate II." Inheritance rate I indicates the degree to which the father's occupation has been inherited, while Inheritance rate II shows how many inheritors there are in each occupation. In the field of social sciences, the concept showing the degree to which the parent's occupation is inherited is generally called "outward flow," and the concept showing the number of inheritors in their current occupations is called "inward flow" (Sato 2000).

Specifically, if we take agriculture as an example, the data show that while sons inheriting their fathers' jobs (≒ agriculture) have sharply decreased, those engaged in agriculture are nearly all inheritors; in other words, almost 100% of the fathers of sons engaged in agriculture were also engaged in agriculture.

From this, we know that the rate of occupational inheritance amongst business owners has risen in both I and II, albeit gradually, while in agricultural industries Inheritance

Table 2. Chronological Changes in the Rate of Occupational Inheritance for the Whole Sample

	SSM		JGSS
1955	43%		
1965	24%		
1975	18%		
1985	12%		
1995	7%		
2005	10%	2000−2010	10%

Source: Prepared by the author from SSM and JGSS data.

rate I has continued to fall but Inheritance rate II has trended almost consistently at 100%. It may be assumed that inheritors' income has increased relatively as a result of these trends.

Meanwhile, Table 2 shows chronological changes in the rate of occupational inheritance for occupations as a whole.

From this, we can see that the ratio of people inheriting occupations fell consistently up to around 2000.[5] The emergence of various new job types associated with economic growth and migration from the provinces to the cities are thought to be behind this. Besides this, in addition to the decreased occupational inheritance in agriculture as mentioned above, a decline in the number of self-employed may also be a conceivable factor (Genda and Kambayashi 2001).

2. Existing Research on Occupational Inheritance

A vast body of social science research has been accumulated on parents' occupations vis-à-vis their children's occupations, in the form of class mobility research. Generally, these may be understood mainly to assume social strata such as upper and lower white collar, upper and lower blue collar, and to research the openness of movement between generations (for example, see Ishida and Miwa [2011]). Again, on income mobility, one could point to Sato and Yoshida (2007).

Compared to that context, the difference with this paper is that the main focus is on occupational inheritance in specific occupations, as a discussion from the angle of economics. Research on intergenerational class mobility has also come to be undertaken more actively from the context of economics, a typical example being Long and Ferrie (2013). In research on intergenerational class mobility until then, the focus had mainly been on analyzing intergenerational class mobility in the 20th century; the general view was that there had been no significant variation in social mobility in developed nations. But if we expand the temporal parameters of the analysis to include America in the 19th century, we find that

[5] It should be noted, however, that the occupational categories in the SSM data for 1955–1985 are different from those in fiscal 1995 and 2005. The JGSS categories are the same as the SSM ones for fiscal 1995 and 2005.

openness in 19th century America was very high compared to that since the 1970s.

Let us now briefly summarize existing research on occupational inheritance in the field of economics. The existence of occupational inheritance has been observed in common throughout the world, and is by no means limited to Japan. Although the incentive of receiving physical capital (land, businesses, equipment and other capital) from the parent may be cited as a feature, this is not all. We may also point to the incentive of economic merits received from occupational inheritance, in that job-specific human capital can be sustained or enhanced, brand value can be sustained, and human networks (including clients) can be inherited.

Viewing these forms of occupational inheritance in social terms, it is difficult to discuss whether or not they are desirable. We could see it as socially desirable for traditions cultivated up to the new generation to become human capital as tacit knowledge (Nonaka, Toyama, and Hirata 2010) and to be passed on by virtue of occupations being inherited. On the other hand, it could also be seen as a social loss and unfair if this obstructs efforts to promote movements of people to new industries born of technological progress, etc., nepotism becomes rife, and jobs are taken by people with less ability, compared to others with greater ability who wanted the jobs, due to the influence of their parents. In other words, nepotism could be seen as a phenomenon that most strongly reveals the negative aspects of occupational inheritance.

As existing research on occupational inheritance from the angle of economics, the series of collaborative studies by Laband and Lentz spring most readily to mind. In Laband and Lentz (1983), they highlight a tendency for the children of farm business owners to work in the same agricultural sector as their parents, and point out that both physical capital (land and fields) and human capital in the form of farm employees are inherited. In Laband and Lentz (1990a), they point out that about half of company proprietors are second generation owners who have inherited from their parents' generation, and show that brand value and both physical and human capital can be inherited. In Laband and Lentz (1990b), they suggest that, if a baseball player's child becomes a baseball player, the child often plays in the same position as the parent, and that human capital may be inherited. In Laband and Lentz (1985), they show that, if a politician's child becomes a politician, the child is stronger than the parent in elections, on average, and thus assert that both brand value and human capital are inherited. In Laband and Lentz (1992), they point out that children of lawyers are more inclined to become lawyers, as they receive legal knowledge and others from their parents, while their incomes also tend to be higher than other non-inheriting lawyers.

On the problem of connections, meanwhile, Lentz and Laband (1989) discovered that in a certain US medical school, doctors' children were admitted to the school even if their grades were somewhat inadequate. They therefore label this as nepotism. Groothuis and Groothuis (2008) analyze nepotism in the US car racing business NASCAR. Meanwhile, Scoppa (2009) introduces the advantages of public sector jobs in Italy, and shows that, if the parent is a civil servant, the likelihood of the children becoming civil servants rises by more

than 44%, even when other conditions are controlled. Scoppa uses various evidence to show that this is due to nepotism.

More generally, Hellerstein and Morrill (2011), Earmisch and Francesconi (2004), Carmichael (2000), Di Pietro and Urwin (2003), and Corak and Piraino (2010) highlight various forms of correlation between parents' and children's occupational choices (a tendency to take up the same occupation, a tendency to enter the same company, a tendency to take up a job with the same occupational prestige, etc.). Even in developed countries, they find that equal opportunities are not completely guaranteed in occupational choices, and that the parent's occupational status impacts the child's choice of occupation in the labor market.

Finally, a particularly important point is that there is a lot of existing research on the phenomenon whereby "if the parent is self-employed, the child also tends to be self-employed" (Dunn and Holtz-Eakin 2000). This is a topic that concerns so-called family businesses, but is also observed in large corporations (Pérez-González 2006; Bennedsen et al. 2007). For more detail on family businesses and their performance, see Saito (2008).

III. Occupational Inheritance, Long-Term Worklessness and Unemployment, and Human Networks

1. Psychological Cost and Risks Reduced by Occupational Inheritance

It must be well known that prolonged unemployment[6] acts as a major negative in subsequent occupational life. Another well-known fact is that the length of blank periods on a candidate's résumé causes problems in job interviews. Moreover, if such periods of worklessness occurred in younger years, the individual would have generated a large opportunity cost that would normally have led to growth in human capital. As this causes extremely large problems in social terms, it becomes conceptualized and formulated in various forms, as problems of so-called NEETs and freeters, or in recent years, as the problem of solitary worklessness. This could be said to represent a key talking point (Genda and Maganuma 2004; Kosugi 2003, 2005; Genda 2013).

In this paper, the impact of occupational inheritance on experience of long-term worklessness and unemployment will be examined. Being able to inherit the father's occupation not only avoids the damage to human capital caused by not having a job; it may also reduce the psychological risk that a lengthy absence from work could cause difficulties in rejoining society in future.

Meanwhile, the employment format of working in a family business, or assisting a parent's job, must make it possible to avoid high psychological hurdles, such as having to prepare résumés or attend job interviews, or having to converse with strangers and sell themselves (or to avoid having to make big decisions). In other words, as long as the relationship with the parent is good, it should be possible to start working with relatively little

[6] Shinozaki (2004) is an example of Japanese research on long-term unemployment.

psychological burden, and even if falling into a state of unemployment or worklessness, the individual should be able to find work straight away. Again, as the parent can ascertain the child's character and abilities to a certain degree, this must also make it easier to assign job roles appropriately. There must also be merits when actually working, such as that the individual can feel free to report or consult on various problems that arise in the course of the work.

It would be fair to say, however, that there has so far been hardly any accumulation of analysis on the various impacts of occupational inheritance from the angle of economics.

In this section, based on the problem awareness outlined above, quantitative analysis will be carried out to see whether occupational inheritors have been able to avoid long-term unemployment and worklessness in their lives until that point.

2. Occupational Inheritance, Long-Term Worklessness and Unemployment

In 2000 and 2001, the JGSS included questions on long-term worklessness and unemployment. The length of protracted worklessness can be gleaned from questions on the number of years out of work after graduating and, of this workless period, the length of time when the respondents were looking for work. Firstly, variables are created for the long-term workless and long-term unemployed.[7] For the long-term workless, 0 represents cases when there is no workless period after final graduation, 1 when there is a workless period of less than one year, 2 when it is between one and less than three years, 3 when it is between three and less than five years, 4 when between five and less than ten years, and 5 when it is ten years or more.

Next, as data on the long-term unemployed, 0 represents cases when there is no workless period after final graduation, 1 when there is an unemployment period of less than one year, 2 when it is between one and less than three years, 3 when it is between three and less than five years, 4 when between five and less than ten years, and 5 when it is ten years or more.

Table 3 is a cross tabulation showing differences between inheritors and non-inheritors in these periods of worklessness and unemployment.

In Table 3, the sample is limited to men who have some kind of job at the present time.[8] From the results, we know that inheritors' workless periods and jobseeking periods are clearly shorter, and that this is consistent with the forecasts made above.[9]

[7] We use sznowork for long-term worklessness and szfindjb for long-term unemployment, but not for cases of "Don't know" and No response.

[8] Specifically, people who did some kind of work throughout the previous week, or were planning to work but circumstances prevented them from doing so, are defined as people who have a job at the present time.

[9] When asked about the possibility of unemployment in future, similarly, inheritors respond that there is a fairly low likelihood of becoming unemployed.

Table 3. The impact of Occupational Inheritance on Periods of Long-Term Worklessness and Unemployment

	Non-inheritance	Inheritance	Total
Period of worklessness			
None	75.4%	91.1%	77.2%
Less than 1 year	16.1%	6.1%	15.0%
1 year to less than 3 years	5.8%	2.4%	5.4%
3 years to less than 5 years	1.5%	0%	1.4%
5 years to less than 10 years	0.9%	0.5%	0.8%
10 years or more	0.3%	0%	0.3%
Total	100%	100%	100%
Sample size	1718	213	1931
Chi-square test of independence			
Chi-square value 26.97			
Significant probability 0.000			

	Non-inheritance	Inheritance	Total
Period of unemployment			
None	80.2%	95.6%	81.9%
Less than 1 year	16.1%	3.5%	15.0%
1 year to less than 3 years	2.6%	1%	2.4%
3 years to less than 5 years	0.6%	0%	0.5%
5 years to less than 10 years	0.4%	0%	0.4%
10 years or more	0.1%	0%	0.1%
Total	100%	100%	100%
Sample size	1617	203	1820
Chi-square test of independence			
Chi-square value 29.168			
Significant probability 0.000			

3. Social Capital

Analysis related to social capital continues to be a subject of lively interest in social sciences. Since these analyses cannot all be included in this paper, it shall suffice to pick out a few representative examples. Inaba, et al. (2014) introduce the current status of social capital research in various fields of social sciences. Iriyama (2012) introduces the flow of social capital research in management studies, organized in a way that is easy to understand. Meanwhile, Lin (2001) gives detailed information on the impact of networks in status attainment and class differentiation. Suggestions on issues like the relationship between economic growth and social capital may be obtained from Putnam (1993, 2000), which triggered the current boom in social capital research. And Granovetter (1995), already regarded as a classic text, points out the importance of weak connections when looking for work, while Genda (2001) is an example of this research in Japan.

Cabinet Office (2003) provides reference on the actualities of empirical analysis aimed at social capital. When creating indices of social capital, measurement focuses on the

Table 4. Occupational Inheritance and Human Networks

	Non-inheritance	Inheritance	Total
Frequency of eating out with friends			
Never	8.3%	8.8%	8.4%
About once a year	7.7%	6.9%	7.6%
Several times a year	33.5%	36.8%	33.9%
About once a month	29.9%	28.6%	29.8%
About once a week	13.8%	13.5%	13.8%
Several times a week	6.1%	4.5%	6.0%
Nearly every day	0.7%	0.8%	0.7%
Total	100%	100%	100%
Sample size	7,070	969	8,039
Chi-square test of independence			
Chi-square value 8.3339			
Significant probability 0.215			

	Non-inheritance	Inheritance	Total
Sense of attachment to current place of residence			
No sense of attachment	2.5%	3.3%	2.6%
Little sense of attachment	11.1%	2.2%	9.7%
Some sense of attachment	49.0%	38.9%	47.5%
Feel a sense of attachment	37.4%	55.6%	40.1%
Total	100%	100%	100%
Sample size	516	90	606
Chi-square test of independence			
Chi-square value 14.2774			
Significant probability 0.003			

	Non-inheritance	Inheritance	Total
Satisfaction with friendships			
Dissatisfied	1.4%	1.2%	1.4%
	7.6%	5.4%	7.4%
↕	42.9%	38.4%	42.4%
	29.8%	31.9%	30.1%
Satisfied	18.2%	23.1%	18.8%
Total	100%	100%	100%
Sample size	8,090	1,102	9,192
Chi-square test of independence			
Chi-square value 24.9075			
Significant probability 0.000			

three aspects of the "relationship and interaction index," the "confidence index" and the "social participation index."

4. Occupational Inheritance and Human Networks

Because it is important to examine the impact of human networks when studying the relationship between isolation and worklessness or unemployment, the focus in this paper is

on issues connected with relationships and interaction. The following types of question in JGSS can be used when investigating the relationship between long-term worklessness or unemployment and human networks ("Frequency of eating out with friends," "Satisfaction with friendships," "Sense of attachment to current place of residence"). Table 4 shows a cross-tabulation of occupational inheritance and the variables related to social capital in connection with these human networks.

On the frequency of eating out with friends, there is no significant difference between occupational inheritors and non-inheritors. On the other hand, inheritors are found to feel a stronger attachment to their current place of residence than non-inheritors.[10] As they have taken up the same occupations as their parents, local ties are thought to have been nurtured over many years through continued residence from the parents' generation.[11] It is easy to imagine how the formation of such local ties will also form human networks with local people.

We could assert that local ties form mutually assisting communities and lead to a variety of merits, including maintenance of public order and care for children and the elderly, while inheritors could be the ones responsible for forming these local ties. Of course, this kind of attachment to communities and local affection may actually encourage the choice of occupational inheritance, and this kind of cause and effect relationship should be a topic for future research. Inheritors also tend to feel more satisfied with their friendships, and the reasoning used in the logic above should hold true in this case as well.

5. Long-Term Worklessness or Unemployment and Social Capital

Next, let us look at the relationship between past experience of long-term worklessness or unemployment and the current frequency of eating out with friends. For experience of long-term worklessness, the variables mentioned above are used, divided into three stages, namely, "No experience of worklessness," "Experience of worklessness or unemployment for less than 1 year," and "Experience of worklessness for 1 year or more." The results are shown in Table 5, revealing that experience of long-term worklessness causes a tendency to eat out with friends less frequently[12]). In particular, a high proportion of those with experience of long-term worklessness have no opportunities at all to eat out with friends. This kind of trend would appear to indicate two possibilities – namely, (i) that protracted periods of worklessness could cause relations with friends to be severed, and (ii) that once a person with no friendships becomes unemployed, the duration of that unemployment

[10] As with the sense of attachment to the place of residence, the wish to continue living in the same area is also stronger among inheritors.

[11] In fact, it may be confirmed that occupational inheritors are more likely than non-inheritors to live in the same prefecture at the time of the questionnaire as they did at age 15.

[12] Satisfaction with friendships is also lower among those with experience of long-term worklessness. The relationship between long-term worklessness and attachment to the place of residence cannot be investigated, as the survey years are different.

Table 5. Workless Periods and the Frequency of Eating Out with Friends

	No experience of worklessness	Experience of worklessness for less than 1 year	Experience of worklessness for 1 year or more	Total
Frequency of eating out with friends				
Never	6.5%	9.2%	22.6%	10.6%
About once a year	7.2%	8.1%	9.8%	8.0%
Several times a year	34.8%	36.4%	31.7%	34.3%
About once a month	28.9%	25.2%	23.0%	27.0%
About once a week	15.6%	14.3%	8.3%	13.7%
Several times a week	6.3%	5.6%	3.7%	5.6%
Nearly every day	0.7%	1.1%	0.9%	0.8%
Total	100%	100%	100%	100%
Sample size	1,492	357	540	2,389
Chi-square test of independence				
Chi-square value 129.1084				
Significant probability 0.000				

could become protracted. It would be desirable for this point to be investigated in detail in future research, using panel data or other resources.

IV. Occupational Inheritance and the Degree of Solitary Long-Term Worklessness

In this section, the focus will turn to the causal impact of occupational inheritance on solitary long-term worklessness. As stated above, existing research and experts in the field suggest that worklessness and human networks are mutually dependent, and that there is great significance in handling them as a single entity. Therefore, principal component analysis will be conducted on the basis of long-term worklessness and unemployment, the frequency of eating out with friends, and satisfaction with friendships. A "degree of solitary long-term worklessness" will then be established, and focus placed on the impact of certain variables on these indicators, particularly that of occupational inheritance. As instrumental variables influencing the choice of occupational inheritance, the aim is to ascertain the causal effect of occupational inheritance on the degree of solitary long-term worklessness, using a dummy variable showing whether the individual in question is the eldest son or not, or the number of elder or younger brothers or sisters.

The variables used in Table 3 are also applied to long-term worklessness and long-term unemployment. Principal component analysis has been conducted on four variables, i.e. these two added to the frequency of eating out with friends and satisfaction with friendships. After normalizing the four variables, these variables are multiplied by the respective eigenvectors of the first principal component, a synthetic scale is created, and this

is then taken as the degree of solitary long-term worklessness.[13] The average degree of solitary long-term worklessness is -0.37, the standard deviation is 1.2, the maximum value is 5.06, and the minimum value is -1.91. The higher the value, the greater the degree of solitariness in human relationships. The value also indicates experience of long-term worklessness or long-term unemployment in terms of occupations.

Table 6 shows the causative effect of occupational inheritance, taking this degree of solitary long-term worklessness as an explained variable.

If the eldest son dummy is made an instrumental variable, the result is shown after conducting 2SLS (row [3]), while row (4) takes the number of elder or younger brothers or sisters as an instrumental variable and shows the result of two-step GMM.

F-test conducted on the instrumental variable in row (1) shows a result of 3.33, with a significant probability of 0.07, while in row (2) the result is 2.45 with a significant probability of 0.0488. Meanwhile, the significant probability for the Hansen J statistic (over-identification test of all instruments) in row (4) is 0.843.

For instrumental variables, the importance of birth order for inheritors in the traditional family system is taken into account. However, birth order is assumed not to affect the outcome of jobseeking activity or the frequency of eating out with friends, after factors such as educational level (university graduation dummy, dropout experience) have been controlled.

Occupational inheritance shows a negative effect, which is consistent with the results of cross-tabulation analysis seen so far.

In the analysis using the eldest son dummy as an instrumental variable, on the assumption that monotone conditions are established, the effect of the occupational inheritance dummy shows the local average treatment effect (LATE) of people (compliers) who would not have inherited if they had not been the eldest son, but inherited because they were the eldest son. However, explanatory variables other than the instrumental variables have been added to ensure the validity of instrumental variables in this paper. As such, it should be noted that the effects of the occupational inheritance dummy variable are covariate-specific LATE, and the results cannot necessarily be interpreted intuitively (Angrist and Pischke 2009).

As to the effect of other explanatory variables, the level of occupational prestige for different occupations (using data obtained from the FY1995 SSM Survey), the marriage dummy, annual household income, and the university graduation dummy are negative, and these reduce the degree of solitary long-term worklessness. Conversely, dropout experience and age have the effect of raising the degree of solitary long-term worklessness.

[13] Specifically, the formula is (0.6786 x workless period)＋(0.6765 x unemployment period) – (0.2267 x frequency of eating out with friends) – (0.1748 x satisfaction with friendships), using the z-transformed versions of the variables.

Table 6. Impact of Occupational Inheritance on the Degree of Solitary Long-Term Worklessness

	(1)	(2)	(3)	(4)
	Inheritance		Degree of solitary long-term worklessness	
Inheritance			-1.347 *	-1.517 **
			(0.735)	(0.655)
Eldest son	0.0721 *			
	(0.0395)			
Number of older brothers		-0.0347 *		
		(0.0207)		
Number of younger brothers		-0.00730		
		(0.00931)		
Number of older sisters		5.82e-05		
		(0.00956)		
Number of younger sisters		0.0217 **		
		(0.00915)		
Years of service	0.000350 *	0.000358 *	-0.000381	-0.000337
	(0.000209)	(0.000216)	(0.000270)	(0.000250)
Occupational prestige score	-0.00187	-0.00176	-0.0117 ***	-0.0121 ***
	(0.00158)	(0.00157)	(0.00313)	(0.00296)
Dropout experience	-0.00682	-0.00728	0.552 **	0.625 ***
	(0.0413)	(0.0426)	(0.229)	(0.215)
Marriage	-0.0500 **	-0.0469 **	-0.133 *	-0.132 *
	(0.0197)	(0.0199)	(0.0757)	(0.0749)
Age	0.00286	0.00272	0.00782 ***	0.00780 ***
	(0.00216)	(0.00211)	(0.00272)	(0.00231)
University graduation	-0.0193	-0.0205	-0.0706 *	-0.0747 *
	(0.0177)	(0.0170)	(0.0425)	(0.0420)
Annual household income	6.55e-05 ***	6.45e-05 ***	-0.000143 **	-0.000125 **
	(2.08e-05)	(2.10e-05)	(5.76e-05)	(5.64e-05)
Large city	-0.00568	-0.00679	0.0337	0.0141
	(0.0231)	(0.0233)	(0.0566)	(0.0559)
Small city	0.0263	0.0276	-0.0270	-0.0402
	(0.0284)	(0.0278)	(0.0488)	(0.0456)
Father self-employed	0.101 *	0.101 *	0.0589	0.0558
	(0.0583)	(0.0590)	(0.0777)	(0.0719)
Constant	-0.0356	0.0206	-0.246	-0.218
	(0.0841)	(0.0636)	(0.190)	(0.178)
Observations	1,279	1,273	1,279	1,273
R-squared	0.083	0.086		

Notes: 1. Cluster-Robust standard errors in parentheses.
2. Clusters are the respondents' job type, numbering 138.
*** p<0.01, ** p<0.05, * p<0.1.

V. Degree of Solitary Long-Term Worklessness and Happiness

Finally, let us simply confirm the relationship between the degree of solitary long-term worklessness and happiness. Taking the degree of solitary long-term worklessness discussed above as the explanatory variable, sequential logit analysis was conducted using the level of satisfaction with life in general (1: Unhappy – 5: Happy, reversing the order in the original data) as the explained variable.

Of the variables that make up the degree of solitary long-term worklessness, analysis was carried out using the long-term unemployment variable and the frequency of eating out with friends. Here, as an exception, analysis results using a female sample are also reproduced in this Table. In the analysis until now, the female sample has been excluded from the analysis. This is because a strong sample selection bias is thought to occur in the female sample, in terms of whether or not labor is provided, and the effect of occupational inheritance is very strongly observed. But because the present analysis focuses on the level of happiness (a variable that is observed in both working people and workless people alike), women have been added to the subjects of analysis. The results in Table 7 reveal that an increase in the degree of solitary long-term worklessness significantly reduces happiness. Although Hintikka et al. (2000), among others, report that having many friends tends to result in high levels of happiness, irrespective of gender, the focus here will be on differences between men and women in results concerning the frequency of eating out with friends.

While the frequency of eating out with friends does not have a significant impact on men, for women it is significant at the level of 1%. This would suggest that women can obtain direct benefits from human networks, but that for men this effect is weaker. A tendency for men to become isolated more easily could be concluded to result from this. And it is thought possible that this tendency to become isolated could have the effect of prolonging periods of unemployment.

On long-term unemployment, as Ohtake (2004) and Sano and Ohtake (2007) also found, we see that, even when the experience of unemployment was in the past, it diminishes the level of happiness in the present.

Here, the effect of occupational inheritance is only significant in the case of women. As stated above, many inheritors are self-employed. As Kawaguchi (2008) points out, self-employed workers can ensure a level of autonomy that is important for the endogenous motivation to perform their work, and their levels of job satisfaction also tend to be higher. However, the results show this to be insignificant for men but significant for women, suggesting that, for men, autonomous working formats might only have a weak impact on happiness. This is thought to be linked to a problem with the sample selection. That is, as women are not so well endowed with employment opportunities, this result most likely reflects the effect of being able to work in the first place. Points such as this could be seen as issues for future research.

Table 7. Solitary Long-Term Worklessness and Happiness

	(1)	(2)	(3)	(4)
	Men		Women	
Degree of solitary long-term worklessness	-0.309 ***		-0.216 ***	
	(0.0646)		(0.0609)	
Frequency of eating out with friends		0.0677		0.212 ***
		(0.0464)		(0.0543)
Experience of long-term unemployment		-0.204 ***		-0.161 **
		(0.0766)		(0.0817)
Inheritance	0.0635	0.150	0.531 *	0.504 *
	(0.163)	(0.159)	(0.282)	(0.277)
Dropout experience	0.0552	0.00398	0.0623	-0.0305
	(0.290)	(0.288)	(0.590)	(0.587)
Marriage	1.491 ***	1.508 ***	1.035 ***	1.063 ***
	(0.154)	(0.154)	(0.186)	(0.184)
Age	-0.0929 ***	-0.0874 ***	-0.140 ***	-0.130 ***
	(0.0258)	(0.0256)	(0.0331)	(0.0332)
Age squared	0.000823 ***	0.000732 ***	0.00150 ***	0.00139 ***
	(0.000261)	(0.000258)	(0.000341)	(0.000342)
University graduation	0.0625	0.0672	0.305	0.336 *
	(0.107)	(0.107)	(0.187)	(0.188)
Household income	0.000333 **	0.000426 ***	0.000333 **	0.000327 **
	(0.000138)	(0.000138)	(0.000155)	(0.000152)
Large city	0.218	0.215	-0.166	-0.361 *
	(0.159)	(0.158)	(0.215)	(0.217)
Small city	0.0549	0.0569	-0.0617	-0.111
	(0.121)	(0.120)	(0.173)	(0.171)
Cut1	-5.699 ***	-5.367 ***	-6.456 ***	-5.707 ***
	(0.662)	(0.692)	(0.759)	(0.809)
Cut2	-3.711 ***	-3.535 ***	-4.864 ***	-4.088 ***
	(0.615)	(0.647)	(0.726)	(0.780)
Cut3	-1.204 **	-1.105 *	-2.639 ***	-1.837 **
	(0.592)	(0.624)	(0.695)	(0.755)
Cut4	0.396	0.481	-1.207 *	-0.411
	(0.592)	(0.624)	(0.688)	(0.751)
Observations	1,435	1,454	781	795
Pseudo R2	0.0476	0.0436	0.0360	0.0380
Log likelihood	-1737	-1781	-978.1	-993.6

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

VI. Conclusion

Probable reasons for the increase in SNEPs are thought to include changes in the socio-economic structure, or the advance of ICT and other technologies. This paper has been one small attempt to investigate changes in socio-economic structure lying behind the increase in SNEPs, or Japan's transformation into a disconnected society.

Of course, it goes without saying that this paper has merely scratched the surface of certain problems. For example, why is occupational inheritance practiced, how is it practiced, and what results does it produce? Again, how has the postwar decrease in occupational inheritance impacted Japan's socio-economy?

As a concept related to worklessness, the use of the term "NEET" (Not in Education, Employment or Training) has generally become very widespread. In the process, it has also been subject to criticism (Honda, Naito, and Goto 2006).

In Japan, "NEET" refers to young workless people, specifically those aged 15–34 in the non-working population who are neither attending school nor engaged in housework. Somewhere along the way, this term has deviated from its original meaning to assume the image of all underdogs in the labor market. It has been recursively accepted by society in this form, and has appeared in particular as a term carrying a nuance of criticism towards workless people in general. As a result, people who used to be vaguely aware of the term have been explicitly shown that there are actually many people who are called NEETs, as an embodiment of the worklessness into which anyone could fall in contemporary Japan. This has heightened people's anxiety and led to "workless bashing." People criticize and discriminate against those who are similar to them but are slightly different (Karatani 1987). The very scale of this criticism of NEETs could be seen as evidence for the latent existence of many people with a high degree of solitary worklessness.

Ultimately, the only way to prevent mistaken images, information and prejudices from being fed back into society is to accumulate research on solitariness or worklessness, and to reinvest it in society.

Note

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Outline and Effects of the Comprehensive Support Project for the Long-Term Unemployed

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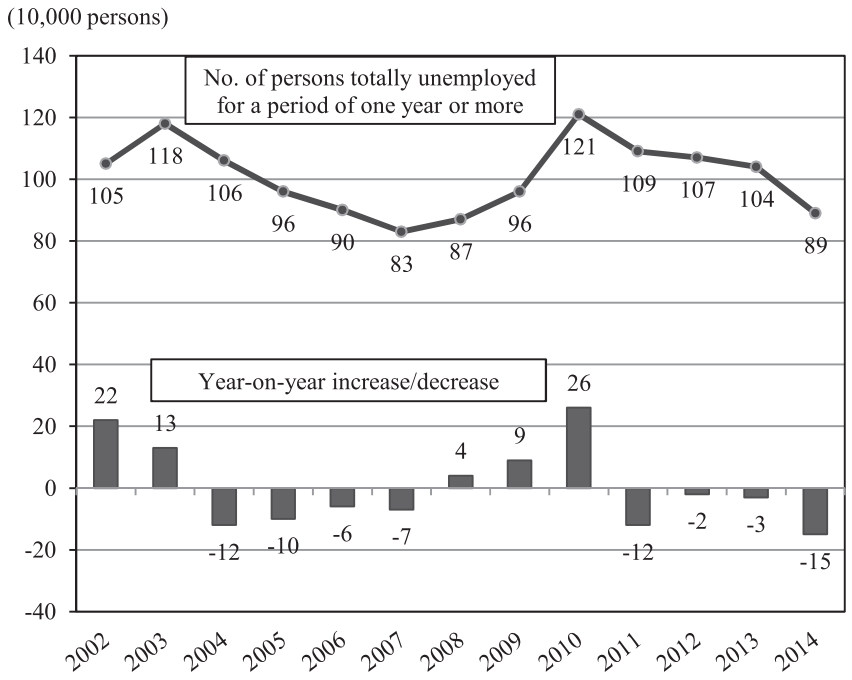
Since fiscal 2011, some of Japan's prefectural Labour Bureaus have been implementing the Comprehensive Support Project for the Long-term Unemployed so as to strengthen and enhance re-employment programs for the long-term unemployed who have not worked for one year or more, or job seekers that are at high risk of falling into this category. The Project is based around the job placement system operated by the nationwide network of Public Employment Security Offices, and also encompasses employment seminars, job introductions, support for stabilization in the workplace, and career counseling by contracted private-sector employment placement businesses. As an example of the program's effectiveness, in fiscal 2013 the number of job seekers for which support commenced was 4,120, and the number of job placements for people who began receiving support in this fiscal year was 3,050. Feedback from beneficiaries of the program includes comments such as, "Thanks to thorough counseling, which began with identification of problem areas and went on to cover setting of goals and approaches to achieving them, I was able to achieve job placement," and "The program helped me improve my communication skills."

1. Background of Project Implementation

According to the Labour Force Survey by the Ministry of Internal Affairs and Communications, among totally unemployed persons, the number of persons whose duration of unemployment (the length of time for which a person has not worked, but has been looking for a job or preparing to launch a business, etc.) is one year or longer averaged 960,000 in a given month in 2009, but in 2010 surged to 1.21 million, and stayed above one million for several years thereafter (the average for a given month in 2014, according to monthly reports, had fallen to 890,000) (See Figure 1) .

Under these difficult circumstances, there are concerns about duration of unemployment being prolonged yet further, and as a countermeasure, the government of Japan has been implementing the Comprehensive Support Project for the Long-term Unemployed (referred to below as "the Project") with funds allocated under the third supplementary budget of fiscal 2011 so as to strengthen and enhance re-employment programs for the long-term unemployed, or job seekers that are at high risk of falling into this category. The Project is based around the job placement system operated by the nationwide network of Public Employment Security Offices (referred to below as "Employment Security Offices"), and also encompasses employment seminars, job introductions, support for stabilization in the workplace, and career counseling by contracted private-sector employment placement businesses.



Source: *Labour Force Survey* (Detailed Tabulation).

Figure 1. Change in Number of Persons Totally Unemployed for a Period of One Year or More

Figure 2 shows an outline of the Project, including the status of cooperation between the Employment Security Office and contracted private-sector employment placement businesses (referred to below as "contractors"). This article provides an overview of efforts by the Employment Security Office to provide job-seeking support to the long-term unemployed, in part by applying know-how obtained from contracted private-sector employment placement businesses.

2. Project Implementation Regions

Out of the 47 prefectural Labour Bureaus overseeing the operations of Employment Security Offices, in fiscal 2014 there were 15 Labour Bureaus selected to implement the Project according to degree of need. In fiscal 2015, however, with the number of the long-term unemployed declining, the Project is being implemented only by some Labour Bureaus with jurisdiction over major urban areas (Hokkaido, Tokyo, Osaka, Fukuoka), those in the prefectures hardest hit by the Great East Japan Earthquake of March 2011 (Iwate, Miyagi, Fukushima), and those in prefectures with large numbers of earthquake and tsunami evacuees from Fukushima prefecture (Yamagata, Niigata).

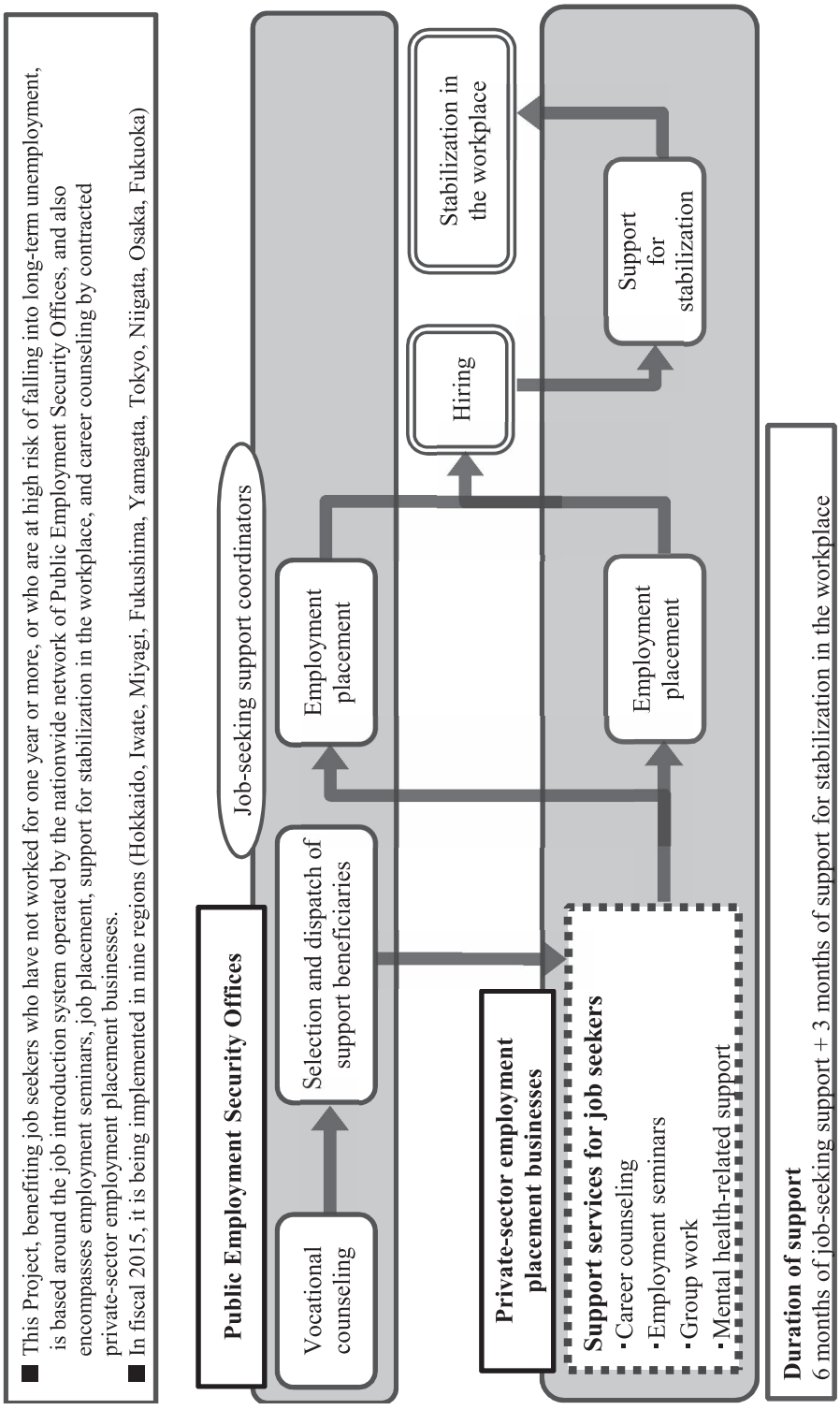


Figure 2. Comprehensive Support Project for the Long-Term Unemployed

3. Project Beneficiaries

The beneficiaries of the Project are job seekers at Employment Security Offices who meet all of the following criteria as of the last day of the month before support begins:

(i) Persons who have not worked for one year or more, or those whose period without working is less than a year but who are judged to be at high risk of falling into long-term unemployment, and are recognized by the director of the Employment Security Office as being suitable for the Project
(ii) Persons younger than 65 years of age
(iii) Persons who, judging by the number of job counseling sessions they have received or number of jobs they have been introduced to, etc., appear to be actively seeking work through the Employment Security Office
(iv) Persons who wish to receive support from private-sector employment placement businesses
(v) Persons who have not received support through the Project in the past, and are not currently Project beneficiaries at another Employment Security Office
(vi) Persons who are not currently in, or scheduled to undergo, vocational training

4. Description of Support Provided

Each fiscal year, Labour Bureaus implementing the Project select contractors from among private-sector employment placement businesses recognized as having the capability to implement the Project appropriately, and the contractors provide job seekers introduced by the Employment Security Office (referred to below as “beneficiaries”) with support as follows:

(1) Job-Seeking Support

(a) Orientation

An orientation is held on the day that support begins, and beneficiaries are given an explanation of the support to be provided, schedules, and utilization procedures. Their current circumstances are verified, and they undergo vocational aptitude tests. After the orientation, they quickly receive their first career counseling session, and a Re-employment Support Plan is prepared for each individual beneficiary. This Plan outlines the current status of the beneficiary’s job-seeking activities, identifies specific job-seeking support issues and approaches, and sets forth the schedule of job-seeking activities, target date for starting work, and the contents of support to be provided. Thereafter, the contents of the Plan may be revised and modified as needed based on the progress of support, after consulting with beneficiaries.

In providing job-seeking support, contractors do not simply wait for requests for help from beneficiaries, but depending on the beneficiary’s situation, may actively make pro-

posals for various forms of support and take the necessary steps to maintain his or her job-seeking motivation. Emphasis is placed on flexibility, and when beneficiaries have a particularly urgent need for employment, the Re-employment Support Plan may be modified or the curriculum fast-tracked so as to meet their needs to the greatest possible extent.

(b) Individual Career Counseling

A career counselor is assigned to each beneficiary, and provides him or her with personalized one-on-one counseling. Depending on the circumstances and wishes of the beneficiary, this counseling may entail individualized advice and guidance including revision of documents such as resumes and work histories, and job interview training such as mock interviews and review and analysis of interview results. As a rule, career counseling is carried out face to face, but when requested by beneficiaries, counselors may communicate by telephone, e-mail, etc.

(c) Group Guidance through Employment Seminars

Employment seminars aim to provide knowledge, develop competency, and heighten professionalism through lectures and hands-on training, by instilling effective attitudes and approaches to job-seeking activities, encouraging beneficiaries to assess themselves and take stock of their employment histories, promoting understanding of the job market and various occupations, imparting the know-how for effective job seeking (how to prepare resumes and work histories and perform well in job interviews, etc.), and building computer skills, etc.

(d) Group Work

Under the guidance of a career counselor, beneficiaries exchange opinions and information on job seeking, strengthening social ties and boosting motivation. As a rule, the first group work session is held the first day Project support goes into effect.

(e) Counseling and Guidance on Lifestyle Habits

Depending on the circumstances and wishes of the beneficiary, support aimed at improving lifestyle habits for the purposes of job seeking or employment may be provided through group seminars or individual counseling.

(f) Mental Health-Related Support

Depending on the circumstances and wishes of the beneficiary, mental health support pertaining to job seeking may be provided through group seminars or individual counseling by psychiatric or medical professionals (clinical psychologists, psychiatric social workers, psychiatrists, public health nurses, or medical nurses).

(2) Employment Opportunity Development, Provision of Information on Available Jobs, and Introductions of Employers

(a) Employment Opportunity Development and Provision of Information on Available Jobs

"Employment opportunity development" is the process of securing employment opportunities by actively encouraging employers to register with the Employment Security Office. Within this framework, the process of attempting to secure employment opportunities compatible with the needs and competencies of specific individuals is known as "individual employment opportunity development." In this Project, beneficiaries are assigned personnel to assist with employment opportunity development. Individual employment opportunity development is carried out and information provided, with the suitability and goals of individual beneficiaries taken into account.

(b) Job Placement

Once employment opportunities have been identified, beneficiaries are placed in jobs that align with their competencies and goals. When necessary, employers recruiting personnel may be asked to loosen some criteria so as to accommodate the beneficiaries.

Job offers received by the Employment Security Office can be utilized for job placement, only in cases where beneficiaries request it, but in such cases it is necessary for contractors to complete the procedure of receiving job offers submitted to the Employment Security Office, and to notify beneficiaries that the job offer in question is one received by the Employment Security Office. If the beneficiary wishes to be placed there and placement is actually achieved, contractors are required to notify the Employment Security Office without delay.

(3) Support for Stabilization in the Workplace

Once beneficiaries have been hired, they are provided with "support for stabilization in the workplace" in the form of individualized counseling on labor issues in the workplace, mental health, career formation, and so forth. This support is to be made available within one month after the beneficiary starts working, and to be offered at least three times thereafter at a frequency of at least once per month. As a rule this counseling is carried out face to face, but when requested by beneficiaries, counselors may communicate by telephone, e-mail, or post, etc.

As a rule, support for stabilization in the workplace is offered to all beneficiaries regardless of whether or not contractors handled their job placements, and whether or not they are regular employees. The only cases in which support is not provided are those where beneficiaries waive support. Regardless of whether support for stabilization in the workplace was carried out or not, contractors verify the workplace stabilization status of all beneficiaries three months after they have begun working, and file a report with the Labour Bureau.

5. Duration of Support

Support is provided until the end of the ninth month after it began (i.e. for a maximum of nine full months), with the job-seeking support, job placement, etc. described in section 4(1)(2) above implemented until the end of the sixth month (a maximum of six full months) and support for stabilization in the workplace described in section 4 (3) provided for three months after the beneficiary begins working.

However, job-seeking support or support for stabilization in the workplace may be terminated sooner if the beneficiary requests it or support becomes unnecessary because the beneficiary is undergoing vocational training, etc.

6. Operations Handled by the Employment Security Office

The Employment Security Office monitors the status of beneficiaries it has asked contractors to support, and provides additional job-seeking support by assigned counselors, planned job placement, job placement through encouragement of office visit, and individualized employment opportunity development making use of beneficiaries' documented work history as needed, aiming to synergize these measures with the job-seeking support provided by contractors, and to achieve beneficiaries' re-employment as soon as possible.

"Planned job placement" refers to the Employment Security Office proactively selecting job offers that can be recommendable to job seekers for application, and when job seekers who fit the criteria for those job offers visit the Office for vocational counseling, the Office actively advising them to apply for the job, hopefully leading to job placement. Meanwhile, "job placement through encouragement of office visit" refers to the Employment Security Office identifying job offers for which individual job seekers appear suitable, suggesting these job offers to job seekers and verifying their willingness or unwillingness to apply for them, and encouraging them to visit the Office and undergo vocational counseling, etc. leading to job placement.

Project beneficiaries are required to visit the Employment Security Office once a month and undergo vocational counseling, at which time the Employment Security Office asks about the status of job-seeking activities, support provided by contractors, etc., and uses information in the responses to suggest job offers to beneficiaries, work toward job placement, and provide guidance and advice to contractors.

For beneficiaries that have not yet been placed in jobs when the job-seeking support period expires, after confirming the wishes of the individual in question, the Employment Security Office provides follow-up support such as "job placement through encouragement of office visit," individualized counseling by assigned counselors, and sending of job offer information.

7. Project Operations

(1) Assignment of Job-Seeking Support Coordinators

The Labour Bureaus and Employment Security Offices implementing the Project assign job-seeking support coordinators to assist with implementation. These coordinators are selected from among candidates with career counseling or other qualifications, knowledge and experience with human resources and labor management at private-sector enterprises, or knowledge and experience with vocational counseling and job placement, and they handle operations at the Labour Bureau including administration of the beneficiary selection process, administrative support with contracts, communication and coordination between contractors and Employment Security Offices implementing the Project, and processing of complaints and consultations from beneficiaries, contractors, or other parties.

Job-seeking support coordinators assigned to Employment Security Offices are tasked with informing job seekers of the Project and explaining its content, handling vocational counseling and job placement, selecting beneficiaries and monitoring the status of support, and handling the complaints and consultations from beneficiaries, contractors, or other parties.

(2) Informing Job Seekers of the Project and Explaining Its Content

The Employment Security Office informs job seekers of the Project during vocational counseling sessions, over the telephone, or by distributing or mailing leaflets, and explains the details of the Project to job seekers who express an interest in utilizing it. When doing so, the Bureau encourages job seekers to consider carefully whether support provided through the Project is necessary for them to achieve employment, taking the current status of their job-seeking activities into account.

The job-seeking support provided by contractors is intended only as a supplement to job-seeking activities, and it is essential that support from private-sector contractors and the public Employment Security Office be simultaneous and coordinated. Project beneficiaries are expected to make active efforts to utilize contractors' support, and during the Project implementation period are expected to continue making active use of the Employment Security Office's job placement services. For this reason, as outlined in section 6 above, at the beginning of the support period, beneficiaries are asked to sign an application form acknowledging that they are required to visit the Employment Security Office once a month and undergo vocational counseling.

It is also explained to Project beneficiaries that when they are selected, the Employment Security Office informs contractors of their personal information (name, date of birth, contact information, qualifications and work history, job placement status, etc.)

(3) Selection of Beneficiaries

When job seekers who have received information and explanations from the Employment Security Office as outlined in (2) above express willingness to utilize the Project's services, it is reconfirmed that they meet the criteria in Section 3. They are then selected and the Labour Bureau informs contractors.

8. Project Implementation Status and Effects

Thus far this article has given an outline of the Comprehensive Support Project for the Long-term Unemployed. In terms of implementation, in fiscal 2013 the number of job seekers for which support commenced was 4,120, and the number of job placements for people whose support periods started in this fiscal year totaled 3,050.

According to personnel at the Labour Bureau, feedback from beneficiaries enumerates benefits of the Project such as: thorough counseling, which began with identification of reasons for failure to find employment and went on to cover setting of goals and approaches to achieving them, leading to job placement; seminars enabling job seekers to recapture a sense of optimism regarding job seeking and heighten their motivation; positive experiences interacting with other people who are similarly engaged in job-seeking activities, resulting in improvements in communication skills; and guidance with writing work history documents when seeking a job in a new field, enabling job seekers to organize themselves and find employment. Personnel also point to thorough support for stabilization in the workplace after job placement as a benefit of the Project.

To achieve swift re-employment of job seekers who have been out of work for long periods of time, it is vital to prepare individualized programs of support and handle individual needs in a detail-oriented manner based on job seekers' circumstances, for example by promoting understanding of the job market and self-assessment, encouraging beneficiaries to broaden their scope of target occupations, and building confidence by taking stock of their employment histories and thereby re-clarifying their competencies.

From these perspectives, the Project is effectively providing comprehensive and intensive support to job seekers belonging to or at risk of entering the ranks of the long-term unemployed, primarily utilizing the massive volume of job offers and nationwide network of the Employment Security Office, but also making use of the know-how of private-sector employment placement businesses.

Examining Potential Future Developments in the Principles of Employment Policy and Measures to Address Long-Term Unemployment in Japan

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In Japan, rapid progress in globalization and technological innovation is likely to result in acute labor shortages in certain industrial fields, while in other fields decrease in the demand for labor may lead to severe structural unemployment. This paper discusses the principles of employment policy and measures to address long-term unemployment that will be required in the future in order to respond to such social and economic changes, focusing mainly on the role of "employability" (the ability and adaptability required to enter and maintain employment, and find new employment as necessary) in these policies and measures. This paper argues that: (i) in the context of an ever more dynamically changing labor market, when developing future employment policies it will be important to ensure renewed awareness of the fact that a worker's capacity to work is the object of transactions in the labor market, and, on the basis of this awareness, to improve the employability of workers so that they are able to adapt to changes in the labor market as the situation requires; and (ii) in order to improve employability, it will be necessary to establish an environment which allows workers not only to improve the practical skills that will be demanded of them in the labor market, but also to maintain their mental and physical health and ensure that they are always prepared for changes in the labor market.

I. Introduction

It is likely that in the future Japan will face economic and social conditions that are shaped by further progress in globalization and technological innovation. Such economic and social changes are also likely to have a significant effect on the structure of the employment of workers in Japan.[1] Namely, it is anticipated that while decrease in the labor force population will create acute labor shortages in certain industrial fields, at the same time, in other fields progress in globalization and technological innovation will lead to a decrease in the demand for labor within Japan, resulting in severe structural unemployment.

Failure to take appropriate measures to respond to such developments will result in more long-term unemployment. This will not only demonstrate the ineffective utilization of the domestic labor force across Japan's labor market as a whole, but also potentially prevent Japan's economic strength from developing, due to increased national costs generated by

[1] For more on the effects of technological innovation on labor, see Erik Brynjolfsson and Andrew McAfee, *Kikai tono Kyoso (Race against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy)*, trans. Akiko Murai (Tokyo: Nikkei BP-sha, 2013).

the need to provide people in long-term unemployment with benefits to guarantee a minimum standard of living. Furthermore, long-term unemployment may also lead to effects such as social unrest caused by an increase in crime, or other such effects that will cause a decrease in the level of living standards across society as a whole.

It is also important not to overlook the effects of unemployment on workers. People who are unemployed are highly likely to have difficulty maintaining a livelihood as a result of their lack of employment. At the same time, they also lose their connection with society and progressively lose the readiness (including not only abilities in specialized fields but also universal and general abilities such as mental drive and physical energy) required to pursue employment activities in the labor market. This trend is even more so the case if people remain unemployed for a long period of time, making it increasingly difficult for such people to engage with the labor market.

The rate of unemployment in Japan is 3.4% (as of March 2015). However, while the rate of unemployment was still below 4% in 2015, the percentage of people in long-term unemployment as a percentage of the total number of unemployed people has been increasing for a significant number of years.[2]

In light of such circumstances, the key issue which needs to be addressed in Japan is what approaches can be taken to tackling long-term unemployment. Namely, with globalization and technological innovation expected to progress rapidly in the medium-to-long term future, it is important to consider what measures can be taken to deal with the issues of structural long-term unemployment and limit social unrest by maintaining favorable economic conditions as far as possible.

The following points need to be kept in mind when addressing this issue:

Firstly, it is necessary to not only offer concrete policy proposals, but also to reexamine the principles of employment policy. The Constitution of Japan stipulates that "all people shall have the right and the obligation to work" (Article 27 [1]). The interpretation of this provision will form the backbone of future measures to address long-term unemployment. Secondly, the ultimate objective of measures addressing unemployment—including long-term unemployment—is to improve the match between the supply of labor and the demand for labor. It is important to address the potential for increasing the "employability" (used here to refer to the ability and adaptability required to enter and maintain employment, and find new employment as necessary) of workers as a means of improving the match in labor supply and demand.

This paper builds on awareness of such issues to examine potential future developments in the principles of employment policy and measures to address long-term unem-

[2] The percentage of people in long-term unemployment (unemployment lasting for one year or more) among the total number of unemployed people was 18.1% in 1995, 25.5% in 2000, 33.3% in 2005, 37.6% in 2010, and 38.5% in 2012. The Japan Institute for Labour Policy and Training (JILPT), *Deta Bukku Kokusai Rodo Hikaku 2014 (Databook of International Labour Statistics 2014)* (Tokyo: JILPT, 2014), Table 4–5.

ployment, focusing mainly on the role of employability in these policies and measures.

II. The Principles of Employment Policy in Japan

1. The Conventional Principles of Employment Policy[3]

Article 27 of the Constitution of Japan provides that all people shall have the right and the obligation to work. According to general understanding, the right to work is interpreted as the obligation of the Japanese government to establish policies that: (i) provide a labor market structure in which workers are able to obtain opportunities to engage in work in which their individual abilities and aptitudes are utilized; and (ii) guarantee a minimum living standard for workers who are not able to obtain such work opportunities. The fulfillment of this obligation to provide such policies is supported by legislation which concerns policies in the labor market, including laws such as the Employment Security Act, Worker Dispatching Act, Human Resources Development Promotion Act, Employment Insurance Act, and the Act on Support for Job Seekers in Finding Employment.[4]

In order to understand the conventional principles of employment policy, it is necessary to start by clarifying the foundations for the existence of the right to work and the obligation to work, and the relationship between the two concepts.

Firstly, the obligation to work can be understood in relation to the guarantee of the right to a certain standard of living (The Constitution of Japan, Article 25). Namely, the Constitution of Japan guarantees the people of Japan "the right to maintain the minimum standards of wholesome and cultured living" (Article 25 [1]) and ensures the provision of public assistance (in Japan, this is provided in the form of *seikatsu hogo* [lit. livelihood protection] under the Public Assistance Act). At the same time, in order to be eligible to receive public assistance, the person receiving assistance is expected to utilize their own assets, abilities, and other such means available to maintain a minimum standard of living (see the Public Assistance Act, Article 4 [1] "Supplementary Nature of Public Assistance"). This design in the framework for providing public assistance has the same fundamental concept as the obligation to work. The relationship between the right to a certain standard of living and the obligation to work is implied by the fact that in the process of discussions to prepare the Constitution of Japan for enactment, the provision regarding the obligation to work was added to the constitution along with the establishment of the provision regarding the right to a certain standard of living.[5]

Under Japan's public assistance system, it is possible that, due to the concept of the supplementary nature of public assistance, the abilities and aptitudes of a recipient of assis-

[3] See alsoYasuyuki Konishi, "Rodo Shijo no Ho Seisaku [Legal policy of the labor market]," in *Rodoho no Soten* [Issues in labor law], ed. Michio Tsuchida and Ryuichi Yamakawa (Tokyo: Yuhikaku, 2014), 240.

[4] Kazuo Sugeno, *Rodoho* [Labor law], 10th ed. (Tokyo: Kobundo, 2012), 21ff.

[5] See the minutes of the plenary session of the House of Representatives on August 24, 1946, etc.

tance will not be sufficiently taken into consideration when it comes to the utilization of their abilities. Moreover, recipients of public assistance have also historically been seen as excluded from the labor market, and in reflection of this and other such circumstances, receiving public assistance was often perceived as potentially attracting stigma.

In response to the situation above, discussions regarding the right to work have developed as the argument that it is obligation of the national government to provide people who have the will and ability to work with opportunities to work.[6] Moreover, pursuing this further, arguments have developed which suggest that the nation is expected: (i) to provide opportunities for work in which workers can utilize their abilities and aptitudes; and (ii) to guarantee a minimum living standard for workers who are unable to acquire such opportunities. It is now typical in Japan to adopt an interpretation of the meaning of the right to work which reflects such arguments.

In this way, the *right* to work and the *obligation* to work have not been interpreted as making up two sides of the same standard, but instead as concepts which incorporate elements with different foundations of existence and policy aims. This is also reflected by the way in which work opportunities are regarded. Namely, with respect to the *obligation* to work (and public assistance), workers are expected to use all possible opportunities to work as means of utilizing their abilities, and in order to be eligible to receive benefits, people are expected to have used all opportunities to work. On the other hand, with respect to the *right* to work, there are demands for work opportunities in which workers can utilize their abilities and aptitudes, and workers are seen as having in a sense the "right" to such opportunities which utilize their skills. The approach to work opportunities differs greatly depending on whether it is looked at from the perspective of the *obligation* to work or from the *right* to work.

Moreover, according to the above interpretations of the right to work, people deemed to possess the will and the ability to work are not considered the target of public assistance schemes but different policies. In addition to this, historically former professional experience has been of great significance when judging whether or not a worker has the will and ability to work. This can also be seen as related to the fact that workers are granted a certain type of "status" based on the professional experience that they have built up over the years, and maintaining that "status" has been regarded an important issue in labor market policy[7]

[6] For more on the history of arguments concerning the right to work, see Masayuki Uchino, *Shakaiken no Rekishiteki Tenkai: Rodoken o Chushin ni shite* [The historical developments of social rights: With a focus on the right to work] (Tokyo: Shinzansha, 1992).

[7] Yasuyuki Konishi, "Vaimaruki ni okeru Shitsugyo Hoken Seido Seiritsu no Dotei: Shitsugyo e no Torikumi to Sono Genkai [The process of establishment of the unemployment insurance system in the Weimar period: Approaches to tackling unemployment and their limitations]," *The Meiji Law Review* 73, nos. 2–3 (2000): 365, addresses how the will and ability to work have been reflected in the unemployment benefits system, arguing that the way in which the system was devised with respect to these concepts can be understood by drawing a connection between these concepts and the formation of the "status" of a worker.

(it is possible to apply this point of view not only to the unemployment benefits system, but also restrictions on dismissal).

To summarize, the right to work as seen in the context described above is based on the fundamental principle that workers should be provided with work opportunities that are suited to the vocational abilities that they have acquired and developed up until the relevant point. This approach is more compatible in employment systems in which, even if the worker becomes unemployed, the work abilities they have acquired and developed over the years are valid (even if only to a certain extent) in the external labor market.

2. Future Prospects for the Principles of Employment Policies in Japan

(1) The Positioning of the Labor Market in Employment Policy

Many of the existing employment policies in Japan have been implemented with the right to work as a foundation. However, the following three points can be raised regarding the typical understanding of the right to work as described above:

Firstly, according to the conventional understanding of the right to work, the provision of employment placements and unemployment benefits is assumed as a given, but points of view on developing the employability of workers are not always clear.

Secondly, the conventional understanding of the right to work demands that a worker is provided with work opportunities suited to the vocational abilities that the worker has developed up until the relevant point, and that the worker be provided with unemployment benefits when such opportunities are not available.

However, due to the fact that in the so-called "Japanese employment system" workers engage in various duties within a company, it is often the case that when a worker becomes unemployed, even if they have acquired and developed vocational abilities that can be applied in their company, they do not possess vocational abilities that can be evaluated in the external labor market. This in turn makes it difficult to take into account the professional experience of said worker when looking for employment placements for them. Namely, "work opportunities which allow a worker to utilize their abilities and aptitudes" take on a less clear and more broad-ranging meaning and scope than they would do if the worker had been able to adopt skills in their company which were also valid in the external labor market. As a result, it is possible that when such workers become unemployed they may be given a placement of employment which they are unwilling to engage in because the work is not related to their previous professional experience, and there is the possibility that if they do not take the employment placement they may not receive unemployment benefits[8] (see the Employment Insurance Act, Article 4 [3], Article 15 and Article 32). The fact that workers who have left or lost their employment may be forced to engage in employment which they are unwilling to engage in is similar to the situation in which a worker is required to utilize

[8] Hereinafter unemployment benefit essentially refers to the basic allowances of unemployment benefits prescribed in the Employment Insurance Act.

all of their abilities in order to be eligible to receive public assistance. That is to say, while the concepts of the right to work and the obligation to work may have developed with different foundations of existence, the situations in which problems arise in relation to these concepts overlap considerably on the level of concrete labor market policy.

Thirdly, it is certainly true that given the social and economic circumstances up until now it has been possible to provide workers with employment opportunities that are suited to the vocational abilities that they have already acquired and developed. As a result, providing such opportunities has been seen as the fundamental demand in employment policies. Namely, employment policies were not planned for a dynamic labor market in which the required techniques and skills change in the short-term. Workers have therefore been regarded as being in the position of the "subject"—as opposed to the "object"—a position which allows them to dictate what kind of work they wish to engage in.

This view of employment policies fitted well with former ventures which interpreted the right to work from the perspective of the potential for workers to feel fulfilled in their professional lives.

However, in the labor market a worker's capacity to work is the "object" of transactions. For this reason, it is anticipated that placing key emphasis on the worker as the "subject"—in the sense that the worker is considered to be in the position to select work opportunities—creates an all the more higher risk of workers becoming alienated from the labor market. It is not possible to overlook this fact when considering the state of employment policies in the medium-to-long term future, particularly given that globalization and technological innovation are expected to progress at an unprecedentedly rapid pace. Namely, the techniques and skills that were required in the labor market up until now will quickly cease to suit the needs of society and the economy and the skills and techniques that are newly required in the labor market will also change in the short term. It is anticipated that in the future the society and economy will no longer be concerned with the aptitudes and abilities that workers have developed in their previous work experience, and such skills will be quickly rendered obsolete in the process of rapid and ongoing social and economic progress. In the context of such progress, it will be difficult for workers to demand the government to provide "work opportunities suited to individual aptitudes and abilities" which are persistently limited to the scope of their former professional experience. If, in spite of this, such demands are accepted and incorporated in employment policy, and benefits to guarantee a minimum living standard are provided to people who are unable to acquire such work opportunities, people will remain in unemployment for even longer periods of time.

(2) The Concept of the "Right to Develop a Career"

An influential opinion regarding the principle of employment policies conceives the "right to develop a career" and asserts that this right should be used as the focal point for

developing employment policy.[9] This opinion notes that ensuring that workers develop professional careers (professional experience) provides opportunities for them to feel fulfilled in their professional lives, and suggests that employment policy should be based on the fundamental principle of exploring what needs to be done in order to ensure that peoples' professional careers continue to develop without interruption.

As under this concept of the "right to develop a career," a "professional career" can be interpreted as "professional experience," it is thought that here the concept of a "career" is essentially formed on the basis of vocational abilities that a worker has acquired and developed through previous experience.[10]

It is certainly true that in the circumstances up until now, in which the progress of globalization and technological innovation was relatively less pronounced, maintaining and developing an existing career was useful not only for the worker concerned but also for society. This concept is also highly significant as it lays the foundation for the development of vocational abilities as the fundamental pillar of employment policy and raises the possibility of review of the direction of employment policy.

However, as just mentioned, it is anticipated that the unprecedentedly rapid progress that globalization and technological innovation are expected to achieve in the future will lead to an even higher possibility that the careers that workers have established up through previous experience will no longer suit the needs of society.

Up until now it has therefore often been the case that in practicality careers have been associated with a sense of identifying with certain work duties or a company organization. As a result, workers' outlooks toward their future professional life have been significantly influenced by their sense of identifying with the experiences that they had accumulated in the past. At the same time, such a sense of identifying is thought to cause workers to develop an outlook toward their career which is not suited to adapting to changes in industrial structure and other such shifts in the market, and which does not fit with the prospects for the future of the market.

(3) The Principles of Employment Policy and Employability

A worker's capacity to work can be regarded as the object of transactions in the labor market. At the same time, the market is anticipated to change significantly in the future within a short period of time. Unless a worker takes the appropriate action to respond to rapid developments in the market, the market value of their capacity to work will decrease, and in some cases the worker may be at risk of being excluded from the labor market. To address such risks, the most pressing issue which needs to be tackled as employment policy

[9] Yasuo Suwa, "Kyariaken no Koso o meguru Ichi-shiron [An essay on the right to develop a career]," *The Japanese Journal of Labour Studies* 41, no. 7 (1999), 54.

[10] However, it is necessary to give adequate consideration to the fact that *career changes* are also the topic of discussions regarding the development of the above concept of the "right to develop a career."

is developed is increasing the employability of workers and establishing an environment in which workers are prepared to adapt to the labor market.

In order to improve the employability of workers to allow them to adapt to the labor market, it is necessary to implement measures in the following three stages:

In the first stage, it is necessary to ensure that workers maintain their mental and physical health, to ensure that they are able to adapt to the various needs of the labor market as the situation requires. The implementation of initiatives in this first stage will provide the foundation for workers to pursue a professional life in the future and allow them to avoid being excluded from the labor market.

The second stage requires adopting measures that allow workers to actually respond to the needs of the labor market as the situation requires. In this stage it is first necessary to establish an environment in which workers are able to engage in work that they wish to engage in and for which there is also a demand in the labor market. More specifically, this may involve workers focusing on potential future developments and responding to the needs of the labor market by utilizing the career they have developed up until now as a starting point from which to establish a new career.[11] However, in going beyond this and establishing a society in which workers can pursue a living based on labor relationships without being excluded from the labor market it will be necessary to establish an environment which allows workers to engage in work in such a way that they adapt to the needs of the labor market more widely as the situation demands, through means such as providing programs to develop vocational abilities suited to the needs of the labor market.

Finally, as the third stage it will also become important to develop an environment in which workers are able to take an overview of the labor market and be constantly aware of what kinds of needs exist in the labor market and what kinds of labor will be required in the future.

It is possible to respond to the reconsideration of the principles of employment policy set out above with the assessment that such an approach involves less emphasis on the worker as the subject—that is, the worker being able to choose the work they engage in—and that this in turn may lead to workers achieving less professional fulfillment than they would if they engaged in a certain type of work that they wish to engage in.

However, even if the career that a worker has developed through their previous experience is of value to the worker themselves, if the labor market does not need that career, it will be difficult to pursue that career in the labor market and it will therefore be inappropriate to make ensuring the pursuit of such careers a focal point of employment policy.

Reinterpretation of the principles of employment policy with employability—for which an important element is workers developing the abilities described in the three stages described above—as a focal point stems from renewed awareness of the fact that a worker's

[11] The concept of the "right to develop a career," described in the previous part of this section, is thought to have been envisioned mainly in the context of cases such as these.

capacity to work is the object of transaction in the labor market. Although this reinterpretation may be based on the concept of a worker's capacity to work as the object of transactions, improving employability by implementing the initiatives set out in the three stages above will allow workers to adapt to the labor market flexibly and with a positive attitude. Moreover, such initiatives may allow workers to engage in the work that they wish to engage in. Increasing employability in this way will consequently provide workers with a greater sense of professional self-fulfillment, and create other such opportunities for workers to improve the quality of their professional lives.

III. Concrete Measures to Address Long-Term Unemployment

1. Legal Restrictions on Dismissal

In Japan, when a dismissal lacks objectively reasonable grounds and is not recognized as appropriate on the basis of socially accepted ideas, the dismissal can be found to be an abuse of the right to dismissal and rendered invalid (Labor Contract Act, Article 16). Relaxing these restrictions on dismissal is one of the potential means of fixing the problem of long-term unemployment. This argument is that relaxing restrictions on dismissal will increase mobility in the labor market and ensure that even if workers become unemployed it will be easy for them to find employment again without remaining unemployed long term.

However, there are two points that need to be kept in mind when approaching this argument:

Firstly, even in the United States, where restrictions on dismissal are relatively less strict,[12] in recent years the rise in the number of people in long-term unemployment has become a problem.[13] This suggests that it is difficult to overcome long-term employment (in other words, to limit the number of people who become unemployed long-term) simply by relaxing restrictions on dismissal.

Secondly, when a worker is dismissed or leaves their employment, they: (i) lose the

[12] The results provided in the *OECD Employment Outlook 2013* (page 86) show that the United States has the second lowest level among OECD countries—behind New Zealand—of protection of regular workers against individual and collective dismissals.

[13] The harmonized unemployment rate in the United States is 8.1% in 2010 (JILPT, *Databook of International Labour Statistics 2014*, Table 4–1). The percentage of people in long-term unemployment among the total number of unemployed people was 6.0% in 2000, but by 2012 it had risen to 29.3% (JILPT, *Databook of International Labour Statistics 2014*, Table 4–5). Moreover, similar to the workers' accident compensation insurance system in Japan, in the unemployment insurance system in the United States, a merit system has been introduced by which the insurance rate is decided according to the insured event (in the US unemployment insurance system this is in proportion to dismissal by the employer). It depends on specifically how the merit system is devised, but generally it is assumed that the merit system will have the effect of curbing dismissals by employers. While this means that there is a higher possibility that employment relationships will continue, if the vocational abilities of workers decline while they are kept in employment, in the event that they lose their employment, they will not possess the vocational abilities demanded by the labor market, and this may increase the risk that they will remain unemployed long-term.

wages which were their source of a livelihood; and (ii) lose the social relationships that they formed and maintained while they were in employment. There is also the risk that: (iii) while they are unemployed the worker will see a decline in their vocational abilities, which are the abilities upon which they are evaluated in the external labor market. When considering changes to restrictions on dismissal as a potential measure for tackling long-term unemployment, it is therefore necessary to look at what kinds of effects such changes may have on the loss of income, social relationships, and vocational abilities that workers may suffer.[14]

For example, loss of income due to reasons such as dismissal may be dealt with by providing support through the unemployment benefit system, but providing unemployment benefits alone will not restore lost social relationships. Moreover, in order to tackle the decline in vocational abilities it is necessary to review and investigate the possibility of measures which do not only involve the payment of unemployment benefits but also incorporate elements such as vocational training tied-in with the payment of benefits.

When such points are taken into account, there may also be cases in which it is deemed reasonable for the employment relationship to be maintained at the expense of the employer.

However, in the event that the employment relationship is maintained, although the possibility of the worker losing income is low, there is the possibility that while remaining in employment they will fail to maintain or develop—and may even lose—vocational abilities that can evaluated in the labor market, particularly those which are recognized in the external labor market (such concerns may also be valid in cases in which government subsidies for employment adjustment [“employment adjustment subsidies”] are paid to employers to supplement the wages of workers on temporary leave of absence). In such cases, when the employer ultimately becomes unable to maintain the employment of a worker, and said worker finds him or herself unemployed and sent out in the external labor market, there is a high risk that they will remain in unemployment long term because they do not have skills that are suited to the labor market. On the other hand, if appropriate occupational training is also provided alongside the adoption of policies intended to maintain employment, and said occupational training allows workers to acquire skills which are recognized by the company that they work for, this will allow them to remain in employment, and in turn act as an effective strategy against the problem of long-term unemployment.[15] Moreover, even if the vocational abilities that the worker obtains through such training are eventually no longer needed by their company, and the worker has their employment terminated as a result, if the worker has acquired abilities which are recognized in the external labor market, there will be a somewhat lower risk of long-term unemployment (for more on systems

[14] Naturally it is also necessary to take into consideration the effects on industrial policy.

[15] The employment adjustment subsidies system also includes a system under which education and training costs (1200 yen per person per day) are added to subsidies if the recipient engages in education and training.

in which greater weight is placed on improving vocational abilities as opposed to maintaining employment, see Part 3 of this section).

2. Revision of Long-Service Incentive Systems

While in Japan there are no laws enforcing the payment of severance pay, many companies have systems in place for providing severance pay.[16] In many cases these systems are such that workers whose employment is terminated at the convenience of the company receive a higher amount of severance pay than those who terminate their employment voluntarily. This difference in the amount of severance pay according to the grounds upon which employment was terminated decreases workers' motivation to resign from employment. Namely, even if a company gives insufficient consideration to supporting the improvement of workers' vocational abilities, workers are likely to hesitate to resign due to concerns that they will receive a low amount of severance pay if they terminate their employment voluntarily.

Under the aforementioned severance payment systems and other such employment systems in which benefits are provided to employees in the long-term for remaining in the service of a company, such as higher remuneration for employees who have worked for a company for a long period of time, even if a company is not providing sufficient opportunities for employees to improve their vocational abilities, employees are more likely to choose to remain in employment with that company. Such circumstances make it difficult for labor to be utilized effectively across the Japanese economy as a whole. Moreover, when workers who remain in employment at such companies are ultimately forced to leave their employment due to dismissal by the employer or other such reasons, it is all the more difficult for those workers to find opportunities to work again, and there is a higher likelihood that they will remain in unemployment long-term. Given such risks, it is necessary to discuss conditions and other such measures which can be introduced to ensure that severance pay systems and other such employment systems offering long-term incentives are consistent with the principles of employment policies in the future.

The employment insurance system may also have the effect of discouraging workers from resigning from their employment. Workers who have been dismissed or become unemployed due to other such reasons are able to receive unemployment benefits under the category of "specific qualified recipient," which means that the prescribed number of days for which they receive unemployment benefits (the number of days for which they can re-

[16] According to the *Overview of the Results of the 2013 General Survey on Working Conditions*, the percentage of Japanese companies which have severance benefit systems (lump-sum payments and pensions) is 75.5%. The figures for each of the categories based on the scale of the companies suggest that the larger the company, the more likely the company is to have a severance benefit system: 93.6% of companies with 1000 or more employees, 89.4% of companies with 300–999 employees, 82.0% of companies with 100–299 employees, and 72.0% of companies with 30–99 employees have severance benefit systems.

ceive the basic allowance) is longer than in the case of workers who terminated their employment voluntarily.[17] This differential treatment may reduce workers' motivation to resign voluntarily. Moreover, if an insured person is dismissed due to grounds attributable to said person, or if they voluntarily terminate their employment without just cause, they do not receive payments of basic allowances (in other words, their benefits are restricted) for a period defined by the head of their local public employment security office (government-run agencies which offer job placement and consultation services) within the range of one month or more and less than three months (the period is three months in principle[18]).[19] In the event that such restrictions are applied and the payment of unemployment benefits is started three months late, the end of the benefit payment period (which is normally one year [Employment Insurance Act, Article 20 (1)]) is pushed back respectively in order to ensure that the recipient receives benefits for the full prescribed number of days for which they would normally be entitled to payment (Employment Insurance Act, Article 33 [3]). This may result in people who left employment feeling less motivated to make efforts to secure new employment promptly. This is unavoidable to a certain extent given the potential for moral hazard and other such factors (see Part 6 of this section), but at the same time it is necessary to recognize that the provisions of the unemployment benefits system can potentially encourage workers to approach finding reemployment less proactively.

3. The Expansion of Education and Training Systems

Providing measures which allow workers to improve their basic and specialized vocational abilities not only while they are unemployed but also while they are still employed will ensure that even if workers have to leave their employment, there is a higher potential

[17] Moreover, cases in which workers fall under the category of "specific qualified recipients," for whom the prescribed number of days of payment is longer, also include—in addition to cases in which the worker was dismissed—cases such as those in which workers leave their employment on the grounds that they were subject to verbal or physical behavior which significantly damaged the working environment in which they were employed by the business holder or relevant employer (more specifically, cases in which workers were repeatedly subject to "deliberate" exclusion or considerable harassment by a superior or colleague, etc. fall under this category) (Ordinance for Enforcement of the Employment Insurance Act, Article 36).

[18] Section 52205 (5) of the Operational Guidelines regarding Employment Insurance (also known as the "Administration Guide") published by the Japanese Ministry of Health, Labour and Welfare.

[19] Such treatment is based on the thinking that in order for an insured person who has left employment to receive payments of basic allowances, the unemployment must be socially approved as involuntary termination of employment and must be based on grounds on which it is socially recognized as a necessity for protection to be provided for the insured person. At the same time, such treatment is also based on the idea that the will to work is nonexistent or weak in the case of voluntary unemployment (The Institute of Labour Administration, ed., *Shinban Koyo Hokenho* [Employment insurance act: New edition] [Tokyo: The Institute of Labour Administration, 2004], 545). However, it is thought that potentially the grounds for said regulations could be the assumption that when a worker enters unemployment voluntarily (even more than in the case of a dismissal or other such circumstances), the existence of the will to work is unclear—as opposed to nonexistent or weak.

for such workers to find new employment opportunities promptly and avoid remaining unemployed long term. Moreover, as it is then possible to allow workers to take the initiative in increasing their vocational abilities, this may also generate higher potential for workers to feel fulfilled in their professional life.

The expansion of professional education and training systems in Japan involved the establishment of the Vocational Education and Training Grant System in 1998. The introduction of this system made it possible for people who have been employed as insured people for a certain period of time and who engage in education and training designated by the Minister of Health, Labour and Welfare to receive grants which amount to a certain percentage of the costs of receiving the education and training from the employment insurance system on completion of said education and training.[20]

The Vocational Education and Training Grant System has remained in place and certain revisions have been made to the content of the system over the years, but no system was established to provide income security for the period during which the education and training is received.

Against this background, systems involving education and training were enhanced as part of the 2014 revisions to the Employment Insurance Act.

Firstly, vocational education and training benefits (payment of 20% of the attendance fees, with a maximum receipt limit of 100,000 yen) were improved, such that the benefits for people who attend courses designated by the Minister of Health, Labour and Welfare as specialist or practical education and training were increased to 40% of the attendance fee, in turn supporting medium-to-long term career development. In addition to this, provisions were also introduced such that people who find employment as a result of acquiring qualifications and other such skills receive an additional 20% of the attendance fees as benefits. Moreover, a new type of grant known as the “grant to support vocational education and training” was also introduced. This grant is provided to people under 45 years of age who have left employment and are receiving vocational education and training, on the basis of their wage before leaving employment (the equivalent of half of the basic allowance for employment insurance).

While the latter grant has been introduced as a provisional measure in place until the 2018 fiscal year and only covers unemployed people who are under 45 years of age, it is a significant development as it decreases the cost of the worker’s loss of wages by providing a certain amount of income security during the period for which the worker engages in education or training to update their vocational abilities. It is hoped that in the future consideration will be given to measures such as further expansion of the range of eligibility and the potential for providing income security while employment is still ongoing.

[20] The theoretical grounds upon which said system was established are thought to be the concept of the “right to develop a career” (see Section II. 2 [2] of this paper) put forward by Professor Yasuo Suwa, the then chairperson of the Employment Insurance Subcommittee of the Central Employment Security Council, an advisory body of the former Japanese Ministry of Labor.

4. Revision of Regulations concerning Leave and Working Hours

As noted in the previous section of this paper (Section II. 2 [3]), in order to ensure that workers are able to pursue a professional career throughout their lives, it is necessary for workers not only to consistently brush up their specialized or specific skills, but also to ensure that they make efforts to maintain the basic level of mental drive and physical energy that they need to pursue a professional lifestyle. This ensures that, even if they find themselves unemployed, they are always prepared to adapt as the situation requires and find new employment promptly.

On the basis of this point of view, another potential subject for consideration is the revision of regulations concerning leave and working hours, with the aim of increasing the free time available to workers. Such measures would allow workers to improve their own skills and create foundations for generating ideas, as well as providing the opportunity for them to become conscious of the future of the labor market. Maintaining and increasing employability in this way decreases the risk of workers who leave their employment remaining unemployed long term.

5. Employment Measures for Young People

The majority of the measures discussed in the previous four parts of this section are aimed at workers who are (or were formerly) employed. However, as is already the case in Europe, there is a high possibility that in the future long-term unemployment will become a serious trend among young people who have not yet entered employment. It is therefore highly important, also from the perspective of overcoming long-term unemployment, to take employment measures aimed at supporting young people[21] (see also Part 7 of this section).

Here the key challenge is ensuring a smooth transition from education into starting work. The tasks will be to review the possibility of adopting work formats which include practical training elements for young people who do not possess sufficient vocational abilities and to use such formats as a foothold for young people to enter into employment society, while also establishing mechanisms to support young people in increasing their employability on an ongoing basis.

6. The Employment Insurance System

The Employment Insurance Act defines the term “unemployment” as the state of an insured person whose employment has been terminated and who is unable to enter new employment despite having the will and the ability to work (Article 4 [3]). Under the employ-

[21] Increasingly greater weight is being placed on employment measures for young people within employment policies as a whole, as suggested by developments such as recognition of the importance of initiatives to encourage the career development of young people, etc. in the “Basic Policies of Economic and Fiscal Management and Reform 2014,” which was approved by a meeting of the Japanese Cabinet on June 24, 2014.

ment insurance system, such "unemployment" is classed as an insured event and unemployment benefits are paid to unemployed people who also fulfill certain other conditions.

However, the above definition of "unemployment" consists of elements such as "will" and "ability," which are hard to measure, and judgements regarding whether or not a person has the "will and ability to work" are inevitably imprecise.[22] This may have the effect of encouraging workers to choose to continue receiving benefits for the maximum prescribed number of days of payment (and discouraging them from embarking on proactive efforts to look for new employment before the prescribed number of days of payment ends). Such moral hazard in the employment insurance system is a serious issue which needs to be overcome not only from the perspective of the financial demands it places on the insurance system, but also from the perspective of ensuring that more people enter reemployment promptly and avoid long-term unemployment. Namely, when a worker chooses not to take active efforts toward reemployment in this way, their vocational abilities gradually decline during the period for which they remain on unemployment benefits, and therefore when they begin looking for employment after they are no longer able to receive unemployment benefits, they no longer possess the vocational abilities required in the labor market. This makes it all the more difficult for them to find employment, and all the more likely that they will remain in unemployment long term. In order to avoid this, it is necessary to incorporate approaches in the existing employment insurance system (particularly regarding the interpretation of the "will and ability to work") which take sufficient consideration of the importance of maintaining the employability of workers.

It is also necessary for legislative debates to investigate various possible means of guaranteeing a minimum living standard for people who are without employment, such as the potential for a benefits system in which "the will and ability to work" is not treated as an insured event and a benefits system which does not entail significantly different treatment depending on whether the worker was dismissed or resigned (see Part 2 of this section).[23]

7. The Support System for Job Seekers

Basic allowances paid under the employment insurance can only be received, in prin-

[22] According to the Operational Guidelines regarding Employment Insurance (also known as the "Administration Guide") published by the Japanese Ministry of Health, Labour and Welfare, in the case of judgements regarding whether or not people have the will and ability to work, care must be given to ensuring that consideration is given to the specific circumstances regarding individual cases, as opposed to making judgements mechanically across the board. Moreover, people who, despite receiving vocational guidance, insist on requesting occupations deemed unsuitable or labor conditions deemed unreasonable by the Public Employment Security Office, or the fulfillment of other such conditions for their employment placement despite having no special grounds for those requests, will be tentatively presumed to not have the will to work (Administration Guide, Section 51254 [4]).

[23] It is also worth considering a statutory severance pay system or similar such system by which workers in employment pay a fixed amount each month into a designated institution, and receive payments from said institution when they are unemployed, regardless of the grounds for leaving employment.

ciple, for up to one year starting from the day after the date of leaving employment (Employment Insurance Act, Article 20 [1]) and do not cover the long-term unemployed.[24]

The Support System for Job Seekers, which came into effect on November 1, 2011, is in place as a system for providing functions to secure a minimum standard of living for people in long-term unemployment.

Under this system, "training to support job seekers" is provided to people who are unable to receive employment insurance benefits—such as people who have already received employment insurance benefits for the full period of entitlement, or people who have graduated school or university and not yet entered employment—and wish to receive support for finding employment. In addition to this, if people receiving support under the system fulfil certain conditions, they also receive grants for attending vocational training (100,000 yen per month plus [a prescribed amount of] travel expenses) during periods for which they engage in training which is aimed at assisting them in finding employment.

A considerable number of people eligible for support under the Support System for Job Seekers do not necessarily find it easy to enter employment and are already in long-term unemployment or at high risk of being unemployed long term. In view of such trends among people eligible for the system, in order to ensure that it actually assists people in finding employment, efforts have been made within the system to approve training programs which assist job seekers in finding employment and establish strict conditions concerning attendance of training, as well as incorporating elements implemented by local public employment security offices, such as devising support plans for each person receiving training under the system, and ensuring that they have regular contact with each person receiving training. Such systems may assist people in entering employment promptly by providing them with vocational abilities that are suited to the needs of the labor market, but it is necessary to constantly verify whether or not such results are actually being achieved, and conduct reviews of the system when required. Furthermore, as grants for attending vocational training also function as benefits to guarantee the minimum standard of living of recipients, they involve a high risk of moral hazard. Participation in the Support System for Job Seekers exclusively for the purpose of receiving benefits to guarantee a minimum living standard is contrary to the purpose of the system, which aims to improve the vocational abilities of job seekers, and job seekers who use the system in this way are at high risk of losing employability. It is therefore also necessary to constantly verify that the system is functioning effectively from this perspective.

[24] Unemployment benefits were originally established under the system of employment insurance with the aim of protecting workers in short-term unemployment. The period of payment of unemployment benefits was limited to one year in principle, under the thinking that measures in response to constant long-term unemployment should be dealt with as part of efforts to develop employment policies. Masao Endo, *Koyo Hoken no Riron* [The theory of employment insurance] (Tokyo: Nikkan Rodo Tsushinsha, 1975), 396.

IV. Conclusion

Up until now employment policies have not sufficiently taken into account the fact that a worker's capacity to work is the "object" of transactions in the labor market, and has instead placed emphasis on workers feeling fulfilled in their professional lives. More specifically, a key issue for policies has been securing opportunities for workers to achieve such a sense of professional self-fulfillment, by starting with ensuring that they are able to utilize their previous professional experience. However, with globalization and technological innovation anticipated to progress at a rapid pace, when developing future employment policies it will be necessary to ensure renewed awareness of the fact that a worker's capacity to work is the object of transactions in the labor market, and, on the basis of this, to adjust employment policies so that they are focused on the future of the labor market and allow for initiatives which increase the employability of workers.

Moreover, it is also possible that the conventional employment system has encouraged workers to try to maintain the "status" which they acquired in the past and consistently avoid addressing changes in the labor market throughout their working lives until they are safely beyond the "goal line"—that is, the age from which they are eligible to claim their pension. Workers have therefore tended to lack proactivity toward adapting to new environments and developing their own vocational abilities as required. Employment policies in the future will require workers to take a very different stance toward work opportunities and the labor market. Namely, it will be necessary to establish an environment which allows workers to approach situations with greater energy and proactivity, to develop a readiness with which they are always able to respond to the needs of the labor market as necessary, and to acquire work opportunities suited to the needs of the labor market. If workers adopt such a positive stance toward the future, this will lead to improvements in employment systems such as workers taking an active role in exerting influence on the labor market and in turn feeling fulfilled in their professional lives. Such social developments would also be consistent with the concept of a "society in which all people are able to work, regardless of their age," which is a topic which merits investigation on a future occasion.

The Work and Lives of Japanese Non-Regular Workers in the "Mid-Prime-Age" Bracket (Age 35–44)

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Policies and research on labor in Japan have long recognized the issues concerning disparities between regular and non-regular employment. At the same time, in addition to the conventionally-recognized categories of workers in non-regular employment—that is, married female non-regular workers, known as "housewife part-timers," and non-regular workers aged 34 and under (excluding married women), known as "freeters"—in recent years there have been a growing number of non-regular workers who belong in a different category, namely, non-regular workers in the 35–44 age bracket (excluding married women), described in this paper as "mid-prime-age non-regular workers." The objective of this paper is to outline what kinds of labor policy measures should be adopted in response to the increasing numbers of mid-prime-age non-regular workers, while taking into consideration the differences between such workers and freeters. The results of analysis of a questionnaire survey and an interview survey reveal the following points: (i) Many mid-prime-age non-regular workers are in non-regular employment involuntarily, and many are living in a state of poverty; (ii) Many mid-prime-age non-regular workers have experience of regular employment, and a significant number of such workers left their regular employment because they came up against long-working hours and illegal personnel management practices; (iii) Obtaining professional qualifications and making the transition to employment with an indefinite term may help mid-prime-age non-regular workers to enhance their careers and ensure stability in their daily lives.

I. Introduction

1. Issues concerning the Disparities between Regular and Non-Regular Employment in Japan

Since the 1990s, namely, following the collapse of Japan's bubble economy, Japan has seen a rising number of workers in non-regular employment, and improving the employment situations of such workers has become a key issue in the development of labor policy.

Workers in non-regular employment—or "non-regular workers"—refers to workers employed by a company or organization under different terms to those of so-called "regular employees" (*seishain*), who typically enjoy the benefits of lifetime employment contracts and seniority-oriented pay systems. The results of the "Labour Force Survey" conducted by the Ministry of Internal Affairs and Communications show that while in 1990 non-regular workers accounted for 20.2% of the total number of employed workers, this percentage rose to 26.0% in 2000, 33.7% in 2010, and 37.4% in 2014.

Non-regular workers face significant disparities between their working conditions and

those of regular employees. Firstly, many non-regular workers feel that their jobs are not secure. In the Ministry of Health, Labour and Welfare's "General Survey on Diversified Types of Employment" (2010), the percentage of non-regular workers who responded that they were "satisfied" or "somewhat satisfied" with the "security of their employment," was 39.8%, in comparison with 58.1% of regular employees.

Secondly, there is a significant disparity in wages. The results of the "Basic Survey on Wage Structure" (2014) by the Ministry of Health, Labour and Welfare reveal that while the average hourly wage of full-time regular employees who work for companies with ten employees or more is 1937.2 yen, the hourly wage for the non-regular workers of such companies is only 1228.8 yen.[1]

Thirdly, there is also a disparity in the opportunities for skills development. In the "Comprehensive Survey on the Employment Conditions of Japanese People FY 2009" conducted by the Japan Institute for Labour Policy and Training (JILPT), while 54.9% of regular employees responded that their current company or organization of employment offered "many opportunities to expand the scope of [their] work and knowledge/ experience," only 40.5% of non-regular workers gave the same response. Similarly, in the Ministry of Health, Labour and Welfare's "Basic Survey of Human Resources Development" (FY 2013), 44.9% of the regular employees who responded to the survey had "attended off the job training (Off-JT)," while the percentage of non-regular workers who had attended Off-JT was low, at only 18.9%.

2. The Conventional Categories of Non-Regular Workers

It is important to note that, in terms of labor policy, non-regular workers are considered to include two main categories.

The first of these categories is married women in non-regular employment.[2] The increase in the numbers of married women in non-regular employment dates back several decades to the 1970s. In the context of industrial restructuring in the aftermath of the 1973 oil crisis, Japanese companies began to employ housewives in part-time roles as a source of cheap labor (Osawa 1993). There are currently as many as eight million of such women in part-time work, and even today they make up the largest group of non-regular workers (Honda 2010). These women are generally referred to in Japan as "housewife part-timers" (*shufu pato*).

Many housewife part-timers do not wish to become regular employees because they have responsibilities such as housework and raising children. Instead, the major issue that housewife part-timers face is the disparity between their wages and those of regular employees. This is particularly the case in retail businesses, where although many housewife

[1] Both the regular employees and the non-regular workers compared here work on a full-time basis. The hourly wages given here are calculated by dividing the amount of salary paid for prescribed working hours by the prescribed number of actual working hours.

[2] Here "married women" refers to women who currently have a spouse.

part-timers are being utilized as part of the core labor force of retail stores, their wage level is extremely low (Honda 2010). At the same time, there is also the issue of the so-called "M-shaped curve" in female labor force participation in Japan, namely, the fact that many women leave employment when they marry or have children. This continues to be a strong trend in Japan, and is a significant factor behind the large numbers of women becoming housewife part-timers (JILPT 2011). In response to these issues, policies are developed such that emphasis is placed on establishing equal and balanced treatment between part-time workers and regular employees, as well as encouraging women to remain in employment after marriage and childbirth and while raising children (Ministry of Health, Labour and Welfare 2013).

The second major category of workers in non-regular employment is that of the non-regular workers in the "young to early-prime-age" bracket (age 34 and under). These workers are referred to in Japan as "freeters" (*furita*). The existence of freeters was first recognized at the peak of the bubble economy in the late 1980s, at which time it was not seen as a social problem. However, in the aftermath of the collapse of the bubble economy, and the subsequent long period in which companies decreased their intake of new graduate recruits—a period known in Japan as "the employment ice age"—the number of young graduates who began their professional careers as non-regular workers or as unemployed people increased rapidly, turning the trend into a social issue (The Japan Institute of Labour 2000; Kosugi 2003). There are various arguments regarding how freeters should be defined for the purpose of statistics, but the definition which is generally-adopted is that provided in the Japanese Cabinet Office's "White Paper on the National Lifestyle 2003" (Cabinet Office, Government of Japan 2003): "Young people aged 15–34 (excluding students and housewives) who are in part-time work or side-jobs (including temporary agency workers, etc.), or who are not in work but wish to find work."

One of the greatest issues faced by freeters is that the opportunities available for them to develop their abilities are relatively scarce in comparison with regular employees, and they are therefore unable to build up sufficient vocational abilities (Sano 2007). It has also been noted that people who are subject to disadvantageous conditions when they leave education, such as limited academic abilities or parents with a low income, are more likely to become freeters (Cabinet Office, Government of Japan 2012). Unlike housewife part-timers, who have other responsibilities such as housework and raising children, many freeters wish to become regular employees. For this reason, policies are developed with a focus on improving the support provided in schools to assist students in finding employment, as well as incorporating development schemes aimed at equipping young non-regular workers with the abilities they need to make the transition to regular employment, such as vocational and lifestyle training which helps participants to develop relevant personal skills (Ministry of Health, Labour and Welfare 2012).

Table 1. Trends in the Numbers (in 10,000s of People) and Proportions (%) of Non-Regular Workers

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012	2013	2014
Males and females age 25−34												
(A) People in work	1434	1430	1429	1414	1397	1352	1313	1267	1235	1186	1168	1152
(B) Employed workers	1314	1311	1323	1307	1305	1258	1223	1180	1154	1122	1102	1086
(C) Non-regular workers	269	281	308	318	328	324	313	302	298	297	301	303
(C)/(A)×100	18.8	19.7	21.6	22.5	23.5	24.0	23.8	23.8	24.1	25.0	25.8	26.3
(C)/(B)×100	20.5	21.4	23.3	24.3	25.1	25.8	25.6	25.6	25.8	26.5	27.3	27.9
Males and females age 35−44												
(A) People in work	1251	1276	1294	1323	1360	1399	1427	1436	1451	1509	1516	1514
(B) Employed workers	1052	1082	1102	1128	1167	1214	1238	1254	1272	1337	1344	1341
(C) Non-regular workers	259	274	289	301	318	329	344	338	348	370	389	397
(C)/(A)×100	20.7	21.5	22.3	22.8	23.4	23.5	24.1	23.5	24.0	24.5	25.7	26.2
(C)/(B)×100	24.6	25.3	26.2	26.7	27.2	27.1	27.8	27.0	27.4	27.7	28.9	29.6

Source: *Labour Force Survey* (Detailed Tabulation) conducted by the Ministry of Internal Affairs and Communications.

Note: "People in work" includes employed workers, and people who are self-employed or work for a business run by their family. "Employed workers" refers to people employed by a company or organization, etc.

3. Non-Regular Workers in the "Mid-Prime-Age" Bracket (Age 35–44)

The issues concerning freeters have already been the subject of attention for a significant period of time. At the same time, in recent years there has been a noted increase in the number of non-regular workers in an age bracket which is above the typical age range of freeters (age 34 and under). For example, by comparing the results of the Japanese Ministry of Internal Affairs and Communications' "Employment Status Survey" from 2002 and 2007, Osawa and Kim (2010, 110) observe that the increase in non-regular workers in the labor force—described in Japan as the "non-regularization" (*hiseikika*) of the labor force—has "somewhat eased" its effects on the younger population, while at the same time demonstrating "increasing" effects on the 35–44 age bracket.

Here it is helpful to establish the trends in the numbers and percentages of non-regular workers in the 25–34 and the 35–44 age brackets. Firstly, the upper half of Table 1 shows that in the 25–34 age bracket the percentage of non-regular workers among the total number of employed workers has risen from 20.5% in 2002, to 27.9% in 2014. This confirms that the percentage of non-regular workers in the 25–34 age bracket has continued to increase in the 2000s.

At the same time, the lower half of Table 1 shows that in the 35–44 age bracket the percentage of non-regular workers among the total employed workers has risen from 24.6% to 29.6% in the same period. In terms of the actual numbers of workers, this equates to a rise from 2.59 million to 3.97 million—a 53.2% increase. This is higher than the 12.6%

Table 2. Trends in the Numbers (in 10,000s of People) and Proportions (%) of Mid-Prime-Age (35–44) Non-Regular Workers (Excluding Married Women)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012	2013	2014
Males age 35−44												
(A) People in work	744	757	767	778	797	816	834	835	843	870	862	856
(B) Employed workers	624	638	650	656	675	699	713	718	728	753	747	740
(C) Non-regular workers	35	35	43	45	49	53	58	53	57	61	68	71
(C)/(A)×100	4.7	4.6	5.6	5.8	6.1	6.5	7.0	6.3	6.8	7.0	7.9	8.3
(C)/(B)×100	5.6	5.5	6.6	6.9	7.3	7.6	8.1	7.4	7.8	8.1	9.1	9.6
Unmarried females age 35−44*												
(A) People in work	71	78	82	93	97	112	112	121	123	134	203	194
(B) Employed workers	66	72	75	86	91	105	105	113	116	127	191	182
(C) Non-regular workers	16	20	24	24	28	34	34	37	38	43	77	78
(C)/(A)×100	22.5	25.6	29.3	25.8	28.9	30.4	30.4	30.6	30.9	32.1	37.9	40.2
(C)/(B)×100	24.2	27.8	32.0	27.9	30.8	32.4	32.4	32.7	32.8	33.9	40.3	42.9

Source: Special Tabulation of the *Labour Force Survey* (Detailed Tabulation) conducted by the Ministry of Internal Affairs and Communications

Note: People in education at the time of the survey were not included in the figures.

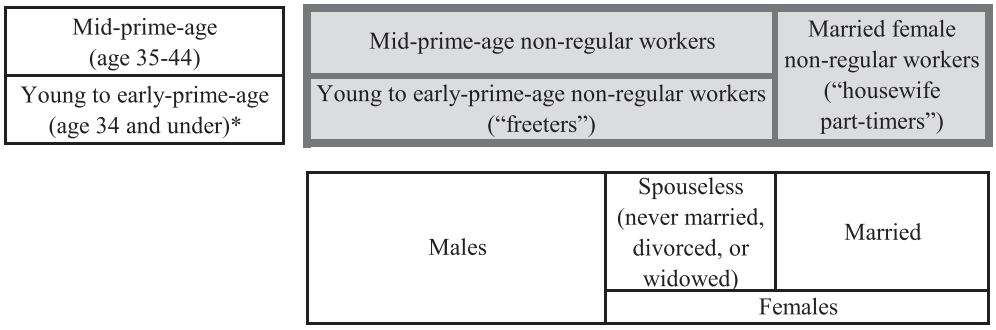
*Figures for 2013 onward include divorced and widowed women.

increase in the number of non-regular workers in the 25–34 age bracket.

It is also important to note the fact that, as mentioned above, housewife part-timers have conventionally accounted for a significant majority of the total non-regular workers in the 35–44 age bracket. However, Table 2 shows that there have been definite increases in the numbers and percentages of not only married women, but also men, single women, and divorced or widowed women in non-regular employment.[3] More specifically, as shown in the upper half of Table 2, the percentage of non-regular workers among male employed workers in the 35–44 age bracket rose from 5.6% in 2002 to 8.1% in 2012. The percentage of non-regular workers among single women in the 35–44 age bracket has also increased, from 24.2% to 33.9% in the same ten-year period, as shown in the lower half of Table 2. The actual number of men and single women in non-regular employment in the 35–44 age bracket has doubled over the last ten years, from 510,000 to 1.04 million people.

The percentage of male non-regular workers in the 35–44 age bracket also continued to rise in 2013 and after, reaching 9.6% in 2014. Figures regarding female workers demonstrate similar trends, with the figures for 2013 and after, which combine single women and divorced and widowed women as "spouseless women," showing an increase from 40.3% in 2013 to 42.9% in 2014.

[3] In this paper, "single women" refers to women who have never been married. Single women and divorced or widowed women are referred to here collectively as "spouseless women."



Source: Created by the author.
Note: These terms are adopted for the purpose of this paper, and are not necessarily the same as the terms used in labor administration and other labor research.
*Young people (age 24 or under) are not included in the questionnaire survey respondents.

Figure 1. Definitions of Terms

In any event, by definition these male and spouseless female non-regular workers in the 35–44 age bracket do not fit in the categories of "housewife part-timers"—married female non-regular workers—and "freeters"—non-regular workers in the young to early-prime-age bracket, age 34 or under (excluding married women). The workers in this new category will be referred to in this paper as "mid-prime-age non-regular workers." Figure 1 summarizes the terms adopted in this paper. In light of the increasing numbers of mid-prime-age non-regular workers, the JILPT has been conducting "Research on Working Styles and Work Consciousness of Prime-Age Workers in Non-Regular Employment" with a view to outlining what kinds of labor policy measures should be adopted in response, while taking into consideration the differences between mid-prime-age non-regular workers and freeters. More specifically, this research sheds light on the current work and lifestyle situations of mid-prime-age non-regular workers and the reasons why such workers find themselves in non-regular employment in the "mid-prime-age" period (age 35–44), and investigates the possibilities for career enhancement for such workers and the conditions required for them to do so. This paper is a summary of the latest findings of the research project.

Section II of this paper explains the methods of this research project and the data used in this paper. Section III then goes on to analyze the current work and lifestyle situations of mid-prime-age non-regular workers. In Section IV, the analysis is focused on the employment backgrounds of mid-prime-age non-regular workers. Section V then investigates the potential for mid-prime-age non-regular workers to enhance their careers and the conditions required for them to do so. Building on the results of this analysis, Section VI outlines the issues which need to be addressed in labor policy in the future.

II. Methods and Data

A questionnaire survey and an interview survey were conducted by the JILPT in pursuit of the objectives described above.

The questionnaire survey was implemented in 2013, under the title "Questionnaire Survey on Vocational Careers and Working Styles." The 10,000 subjects of the survey consisted of 3,000 men and women from across Japan in the 25–34 age bracket, which is referred to here as the "early-prime-age" bracket, and 7,000 men and women from across Japan in the 35–44 age bracket, which is referred to here as the "mid-prime-age" bracket. The Basic Resident Registers managed by municipal governments were used for sampling. The sampling was made by dividing the country into 65 region- and city-sized groups, assigning the number of survey locations for each group according to the size of the population, and adopting a systematic sampling method to sample in principle 6 people from the early-prime-age bracket and 14 people from the mid-prime-age bracket for each survey location.

The questionnaire survey was conducted through a combination of interviewing survey subjects using life history calendars and providing them with questionnaires to complete. More specifically, the survey was carried out by staff from a research company who visited the homes of the survey subjects and interviewed them on their vocational careers, filling in a life history calendar with details of the subject's education and work history. The staff conducting the survey then requested the subjects to fill in their own responses to the standard questions on the survey forms and collected the responses at a later date. The data filled in on the life history calendars and the responses on the standard question sheets were codified to allow them to be treated as statistics.

4,970 valid responses were received (a valid response rate of 49.7%). The respondents who provided valid responses consisted of 662 early-prime-age males, 782 early-prime-age females, 1,521 mid-prime-age males, and 2,005 mid-prime-age females.[4]

The interview survey was conducted in 2012, prior to the questionnaire survey, with the aim of developing an in-depth understanding of the lives and vocational careers of mid-prime-age non-regular workers. The subjects of the survey consisted of: (A) 15 non-regular workers from the mid-prime-age (age 35–44) bracket who had experienced non-regular employment for a total of approximately 10 years or more, and (B) 10 regular employees in the mid-prime-age bracket who had made the transition to regular employment at the age of 35 or older after experiencing non-regular employment for a total of approximately 10 years or more. The (A) subjects are mid-prime-age non-regular workers at the time of the survey, and the (B) subjects are former mid-prime-age non-regular workers in regular employment at the time of the survey, who shall also be referred to as "workers

[4] For a detailed overview of how the survey was conducted, see JILPT (2014, 2015).

who transitioned to regular employment during mid-prime-age."[5]

The sample for the interview survey was created by conducting a survey to screen the registered panelists of an online survey company, and selecting those people who fulfilled certain conditions and were able to cooperate with the interview survey. As it is not a random sampling, and also a relatively small sample, there may be a limit to how representative the sample is of such workers as a whole. However, as one of the conditions adopted when selecting the sample was that subjects should have experienced non-regular employment for approximately 10 years or more, it is thought that (A) and (B) can provide meaningful insights as typical examples of mid-prime-age non-regular workers and workers who transitioned to regular employment during mid-prime-age respectively.

An individual interview record has been created by the JILPT (2013) for 23 of the total 25 subjects of the interview survey (the 15 [A] subjects and the 10 [B] subjects combined). This paper analyses 22 of those records: the records of 12 mid-prime-age non-regular workers and 10 workers who transitioned to regular employment during mid-prime-age (the other interview record was not included in this analysis as the subject was a married female and therefore outside of the scope of this analysis). In the pseudonyms given to the subjects, pseudonyms beginning with "X" indicate mid-prime-age non-regular workers and pseudonyms beginning with "Y" indicate workers who transitioned to regular employment during prime-age.

III. Current Working and Living Circumstances

This section uses the results of the questionnaire survey to demonstrate the current working and living circumstances of "mid-prime-age" (age 35–44) non-regular workers in comparison with "early-prime-age" (age 25–34) non-regular workers (not including married women in non-regular employment, who are excluded from this analysis). The survey sample analyzed consists of: 85 male early-prime-age non-regular workers, 123 spouseless female early-prime-age non-regular workers, 103 male mid-prime-age non-regular workers, and 153 spouseless female mid-prime-age workers.

Firstly, the questionnaire survey results show that the academic background of mid-prime-age non-regular workers is lower than that of early-prime-age non-regular workers. In Table 3, the percentages of survey respondents for whom the highest level of education completed is "university" or "graduate school" are 41.2% for early-prime age males and 21.4% for mid-prime age males, and 26.0% for early-prime-age spouseless females, and 9.8% for mid-prime-age spouseless females. While it is conceivable that these figures are affected by the fact that the proportion of people who go on to higher education varies on the whole according to generation, it is still possible to suggest that mid-prime-age

[5] Married women were included as survey subjects at the time the survey was implemented, but as described below, they are not included in the analysis described in this paper.

Table 3. Highest Level of Education and Occupation Types of Non-Regular Workers (%)

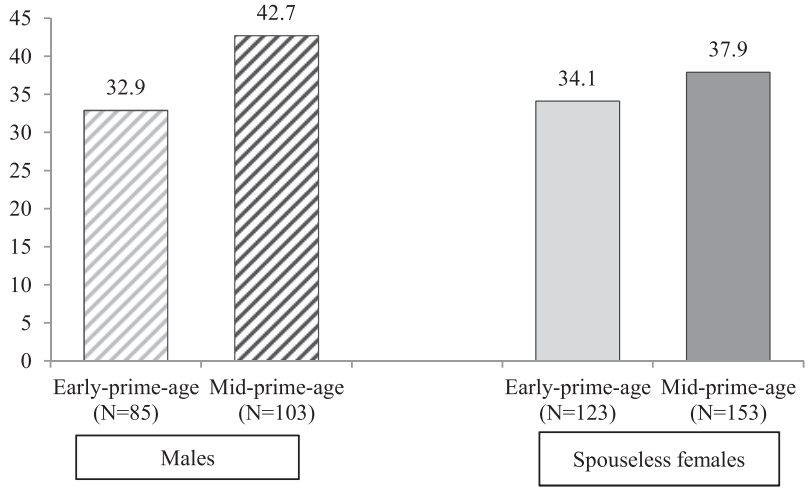
	Males		Spouseless females	
	Early-prime-age	Mid-prime-age	Early-prime-age	Mid-prime-age
Lower Secondary School	3.5	4.9	1.6	3.9
Upper Secondary School	23.5	56.3	30.1	52.9
Specialized training college or school in the "miscellaneous" category*	21.2	10.7	26.0	14.4
Junior college or college of technology	8.2	5.8	16.3	19.0
University	38.8	20.4	24.4	9.8
Graduate school	2.4	1.0	1.6	0.0
Other	2.4	1.0	0.0	0.0
Specialist/technical occupations	23.5	26.2	15.4	11.1
Managerial occupations	0.0	1.0	0.0	0.7
Administrative occupations	4.7	0.0	21.1	30.1
Sales and marketing occupations	3.5	2.9	1.6	1.3
Sales (in-store sales) occupations	15.3	5.8	15.4	9.2
Transport/communications occupations	3.5	14.6	1.6	2.0
Security-related occupations	1.2	1.0	0.0	0.0
Skilled labor/manufacturing process-related occupations	18.8	19.4	11.4	13.1
Agriculture, forestry, and fishery-related occupation	1.2	1.9	0.0	0.7
Service occupations (qualifications required)	2.4	5.8	2.4	5.9
Service occupations (qualifications not required)	20.0	11.7	27.6	18.3
Other occupations	2.4	8.7	3.3	7.8
No response	3.5	1.0	0.0	0.0
Total	100.0	100.0	100.0	100.0
N	85	103	123	153

Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

*Schools providing vocational and practical training.

non-regular workers have a lower final academic background than that of early-prime-age non-regular workers.

Secondly, the survey results also demonstrate that mid-prime-age non-regular workers are engaging in different types of occupations to early-prime-age non-regular workers. Table 3 shows that in the case of males, particularly common occupations for early-prime-age non-regular workers are: occupations requiring advanced specialist knowledge or expertise, such as medical or legal professions (referred to here as "specialist/technical occupations,") which account for 23.5%; roles in the service industry which do not require qualifications ("service occupations [no qualifications required]"), which account for 20.0%; and occupations involving practical operations such as skilled physical labor—including carpentry,



Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

Note: This figure shows the ratio of non-regular workers who selected the response "There was no company where I could work as a regular employee" as the reason why they chose their current working style.

Figure 2. Proportions (%) of "Involuntary Non-Regular Workers"

mechanics, etc.—or work in manufacturing processes ("skilled labor / manufacturing process-related occupations"), which account for 18.8%, while particularly common occupations for male mid-prime-age non-regular workers are: "specialist/technical occupations," which account for 26.2%; "skilled labor / manufacturing process-related occupations," which account for 19.4%, and occupations in transport and communications industries ("transport/communications occupations") which account for 14.6%. At the same time, in the case of spouseless females, particularly common occupations for early-prime-age non-regular workers are "service occupations (no qualifications required)," which account for 27.6%, and office work and other such administrative roles ("administrative occupations"), which account for 21.1%, while particularly common occupations for spouseless female mid-prime-age non-regular workers are "administrative occupations" which account for 30.1%, and "service occupations (no qualifications required)" which account for 18.3%. Namely, among male mid-prime-age non-regular workers "skilled labor / manufacturing process-related occupations" have a relatively high ranking and percentage in comparison with the figures for male early-prime-age non-regular workers, and among spouseless female mid-prime-age non-regular workers "administrative occupations" have a relatively high ranking and percentage in comparison with the figures for spouseless female early-prime-age non-regular workers.

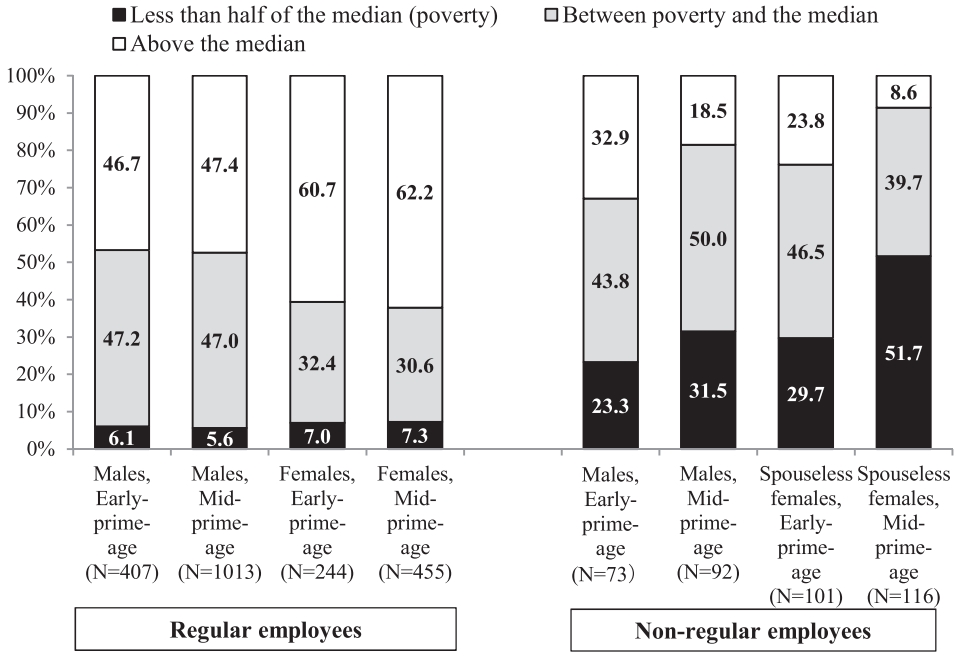
Thirdly, many mid-prime-age non-regular workers are in non-regular employment involuntarily. Figure 2 shows the percentages of early-prime-age non-regular workers and

Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

Figure 3. The Average Wages of Regular Employees and Non-Regular Workers

mid-prime-age non-regular workers who became non-regular workers involuntarily, with percentages given separately for each sex. This shows that in the case of males, 42.7% of mid-prime-age non-regular workers became non-regular workers involuntarily, in comparison with 32.9% of early-prime-age non-regular workers, and in the case of spouseless females, 37.9% of mid-prime-age non-regular workers became non-regular workers involuntarily, in comparison with 34.1% of early-prime-age non-regular workers. This demonstrates that for both males and females, the percentage of mid-prime-age non-regular workers who are in non-regular employment involuntarily, that is, who are so-called "involuntary non-regular workers," is higher than that of early-prime-age non-regular workers.

Fourthly, the wages of mid-prime-age non-regular workers are certainly not high. Figure 3 shows the average wages of early-prime-age non-regular workers and mid-prime-age non-regular workers, with figures given separately for each sex. The average wages of regular employees are given on the left-hand side as a reference. Firstly, it can be seen that the average wages of regular employees increase significantly between the early-prime-age and the mid-prime-age brackets, for both males and females. On the other hand, in the case of non-regular workers, the hourly wages of male non-regular workers increase only slightly between the early-prime-age and the mid-prime-age brackets, from 900 yen to 1000 yen, while the hourly wages of spouseless female non-regular workers decrease slightly from 880 yen to 850 yen between the early-prime-age and the mid-prime-age brackets. This shows that, in contrast with regular employees, the wages of non-regular



Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

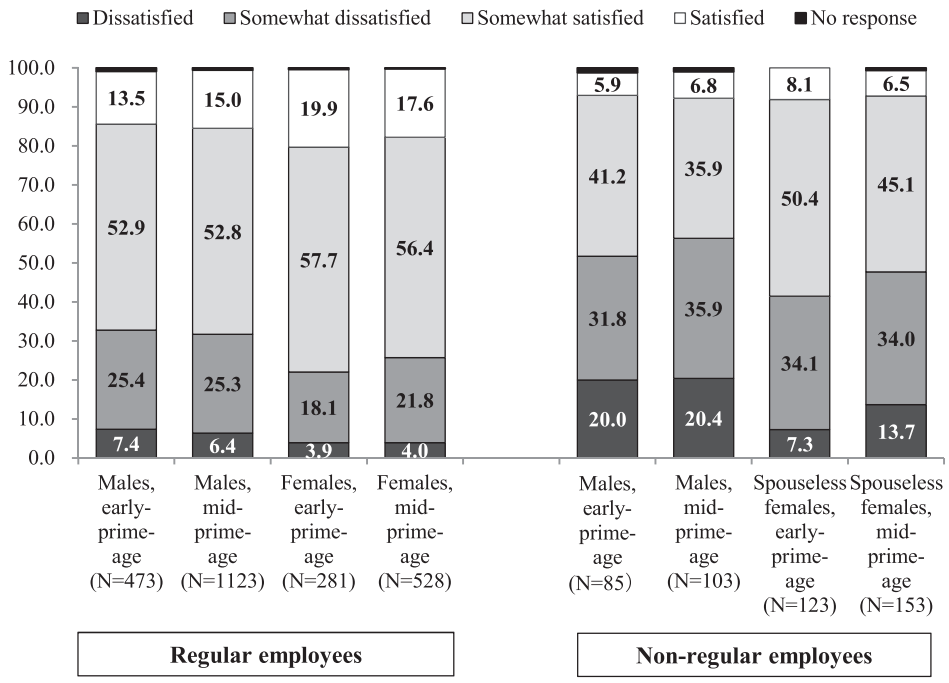
Note: The median of the equivalent household income of employed workers (regular employees and non-regular workers) was calculated, and workers with less than half of the median were defined as being in a state of "poverty."

Figure 4. Probability (%) of Regular Employees and Non-Regular Workers Falling into Poverty

workers do not increase with age.

Mid-prime-age non-regular workers also face tight household finances. Figure 4 compares the probability of early-prime-age non-regular workers and mid-prime-age non-regular workers falling into poverty ("poverty" is defined here as less than half the median of the equivalent household income of employed workers).[6] The probability of regular employees falling into poverty is given on the left-hand side for reference. Firstly, this data shows that for regular employees, the probability of falling into poverty is less than 10%. On the other hand, for non-regular workers the probability of falling into poverty is high, at between around 20% and 50%. It is also important to note that for both males and spouseless females, non-regular workers in the mid-prime-age bracket are more likely to fall into poverty than those in the early-prime-age bracket. The specific figures are 31.5% of male mid-prime-age non-regular workers in comparison with 23.3% of male early-prime-age

[6] Equivalent household income was calculated by dividing the yearly income of a household by the square root of the number of members of the household.



Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

Note: This figure shows responses to the question "Are you satisfied with your current lifestyle?"

Figure 5. Level of Lifestyle Satisfaction (%) of Regular Employees and Non-Regular Workers

non-regular workers, and 51.7% of spouseless female mid-prime-age non-regular workers in comparison with 29.7% of spouseless female early-prime-age non-regular workers.

Mid-prime-age non-regular workers are strongly dissatisfied with their lifestyles. Figure 5 shows the levels of lifestyle satisfaction for early-prime-age non-regular workers and mid-prime-age non-regular workers, with figures given separately for each sex. The lifestyle satisfaction levels of regular employees are given on the left-hand side for reference. Firstly, in a comparison between regular employees and non-regular workers, the overall figures for non-regular workers show a higher total percentage of people who responded that they are "dissatisfied" or "somewhat dissatisfied" with their lifestyles. Among non-regular workers, a higher percentage of mid-prime-age non-regular workers in comparison with early-prime-age non-regular workers responded that they are "dissatisfied" or "somewhat dissatisfied," in the case of both males and spouseless females. More specifically, the percentage of respondents who responded "dissatisfied" or "somewhat dissatisfied" was, for males, 51.8% of early-prime-age non-regular workers and 56.3% of mid-prime-age

non-regular workers and, for spouseless females, 41.4% of early-prime-age non-regular workers and 47.7% of mid-prime-age non-regular workers.

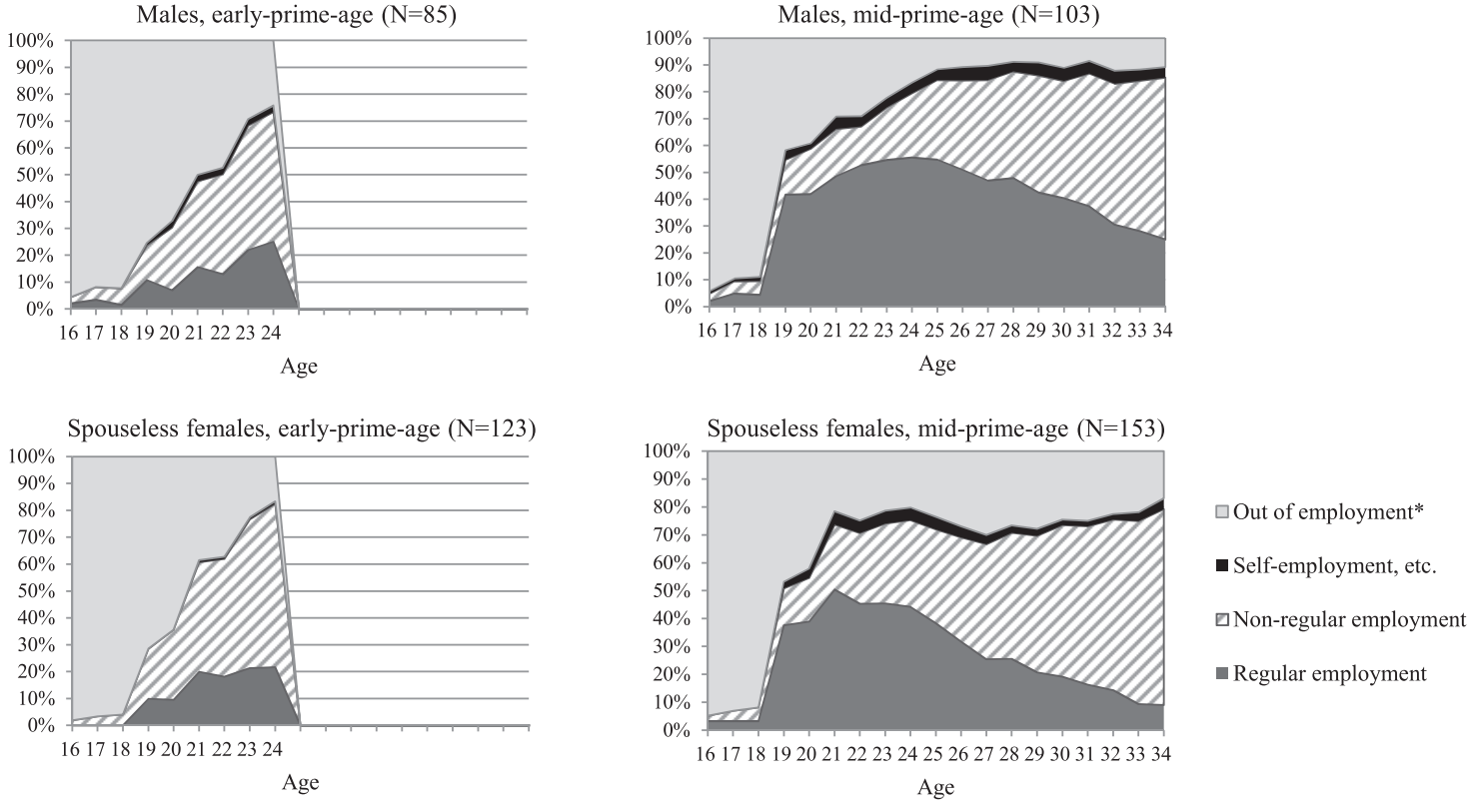
The above analysis can be summarized as follows. Firstly, mid-prime-age non-regular workers have a lower academic background than early-prime-age non-regular workers. Mid-prime-age non-regular workers also engage in different types of occupations to those of early-prime-age non-regular workers, with male mid-prime-age non-regular workers generally engaging in on-site operations work, and female mid-prime-age non-regular workers generally engaging in administrative work. Namely, mid-prime-age non-regular workers are working in a different labor market to that of early-prime-age non-regular workers. Secondly, there is a stronger tendency among mid-prime-age non-regular workers than among early-prime-age non-regular workers to be engaged in non-regular employment involuntarily. Thirdly, as the wages of non-regular workers do not increase with age, the household finances of mid-prime-age non-regular workers are tighter than those of early-prime-age non-regular workers. Fourthly, this results in mid-prime-age non-regular workers having stronger feelings of dissatisfaction regarding their lifestyles than early-prime-age non-regular workers.

IV. Factors Causing People to Become Non-Regular Workers in Mid-Prime-Age (Age 35–44)

This section draws on the results of both the questionnaire survey and the interview survey to investigate why mid-prime-age non-regular workers find themselves in non-regular employment in the mid-prime-age (age 35–44) bracket.

Considerable Numbers of Non-Regular Workers Have Experience of Regular Employment

Firstly, the survey results showed that the proportion of mid-prime-age non-regular workers who have consistently been in non-regular employment since a young age is not necessarily high. Figure 6 shows the record of the types of employment status—out of employment, in self-employment, etc., in non-regular employment, or in regular employment—held by early-prime-age non-regular workers and mid-prime-age non-regular workers, with separate figures given for males and spouseless females, based on the findings of the questionnaire survey. This allows us to say that while around half of the early-prime-age non-regular workers were non-regular workers in their early twenties, in the case of mid-prime-age non-regular workers, nearly half were working as regular employees in their early- and mid-twenties. In other words, a significant number of mid-prime-age non-regular workers have experience of regular employment.



Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.

Note: Part-time work during time as a student is not regarded as employment in principle.

*"Out of employment" includes housewives, students, and other such people not engaged in work, and people who have lost their employment and/or who wish to work but are unable to find employment.

Figure 6. The Employment Background of Non-Regular Workers

Regular Employees Leave Employment Due to Long Working Hours and Illegal Personnel Management

When looking at the grounds upon which mid-prime-age non-regular workers resigned from positions they formerly held as regular employees, it is interesting to note that there are cases in which workers leave regular employment due to being made to work long hours or under illegal personnel management practices. From the 22 individual interview records made on the basis of the interview survey, I selected 18 records and analyzed the grounds on which the respondents left their jobs as regular employees. The 18 records analyzed included the records of 13 respondents who started their vocational careers as regular employees, and five of the nine respondents who began their vocational careers with non-regular employment. The latter five respondents all made the transition from working as non-regular workers to becoming regular employees, before later returning to non-regular employment. This analysis revealed that five of the respondents (Mr. XD, Mr. YK, Mr. XR, Ms. XT, and Mr. YV) left their employment due to long working hours and illegal personnel management practices. The specific details of each case are described below.[7]

Mr. XD (male, 38 years old) began work as a regular employee of a factory after graduating lower secondary school. However, he was constantly made to work late-night overtime, until as late as 11 or 12 p.m. Although his net wages were considerably high, Mr. XD left his employment with the factory after about two years of working there, due to the fact that the work was too strenuous and the issue of late-night overtime was not resolved. He then started work as a regular employee of a store selling general merchandise, but became unemployed around one year later when the store went out of business. All of the jobs that he has held since then have been non-regular employment.

Mr. YK (male, 40 years old) entered regular employment with a call center company directly after leaving university, having been recommended for the job by the careers services department at his university. However, in addition to long working hours which often began at 8:30 a.m. and finished at 11 p.m., he frequently had to work on days off, and was also unable to take substitute days off to make up for the extra time worked. His dissatisfaction with the long-working hours was one of the factors which resulted in Mr. YK leaving his employment with the call center company after four and a half years, following which he remained in non-regular employment for a long period of time.

Mr. XR (male, 42 years old) worked as a non-regular employee until around the age of 30, after which he was hired by a renovation company as a regular employee in an administrative position. However, his working hours were as long as 13 hours per day and close to 80 hours per week. As he had been in non-regular employment for a number of years prior to being hired by the renovation company, Mr. XR initially took an earnest approach to his work, keen to “catch-up” on the career he had missed up until that point. However, after about three years in the job, he resigned due to the increasingly greater strain

[7] The summaries given here are as described in Takahashi (2014).

of the long working hours. Since then, he has been working at another company, where he initially engaged in outsourced work under contract, and was later hired as a temporary worker.

Ms. XT (female, 36 years old) was hired by a restaurant as a regular employee. However, consistent long hours, from 10 a.m. to just before the time of the last train of the day, caused her to develop "depression" and leave her employment. After recovering she started working at a different restaurant as a regular employee, but as it was necessary for her to work 11-hour night-shifts six days a week, she felt that it was "just the same as [her] previous job," and switched to employment as a part-time worker. Since then, she has continued to support herself by working on a part-time basis.

Mr. YV (male, 38 years old) worked part-time until his late twenties, after which he was employed by a musical instrument store as a regular employee. However, there were substantial problems with the personnel management of the company, such as employees not being paid for overtime work, and not being able to use their paid leave. Dissatisfied with the conditions, Mr. YV left his job with the musical instrument store and was then in non-regular employment for the following five years.

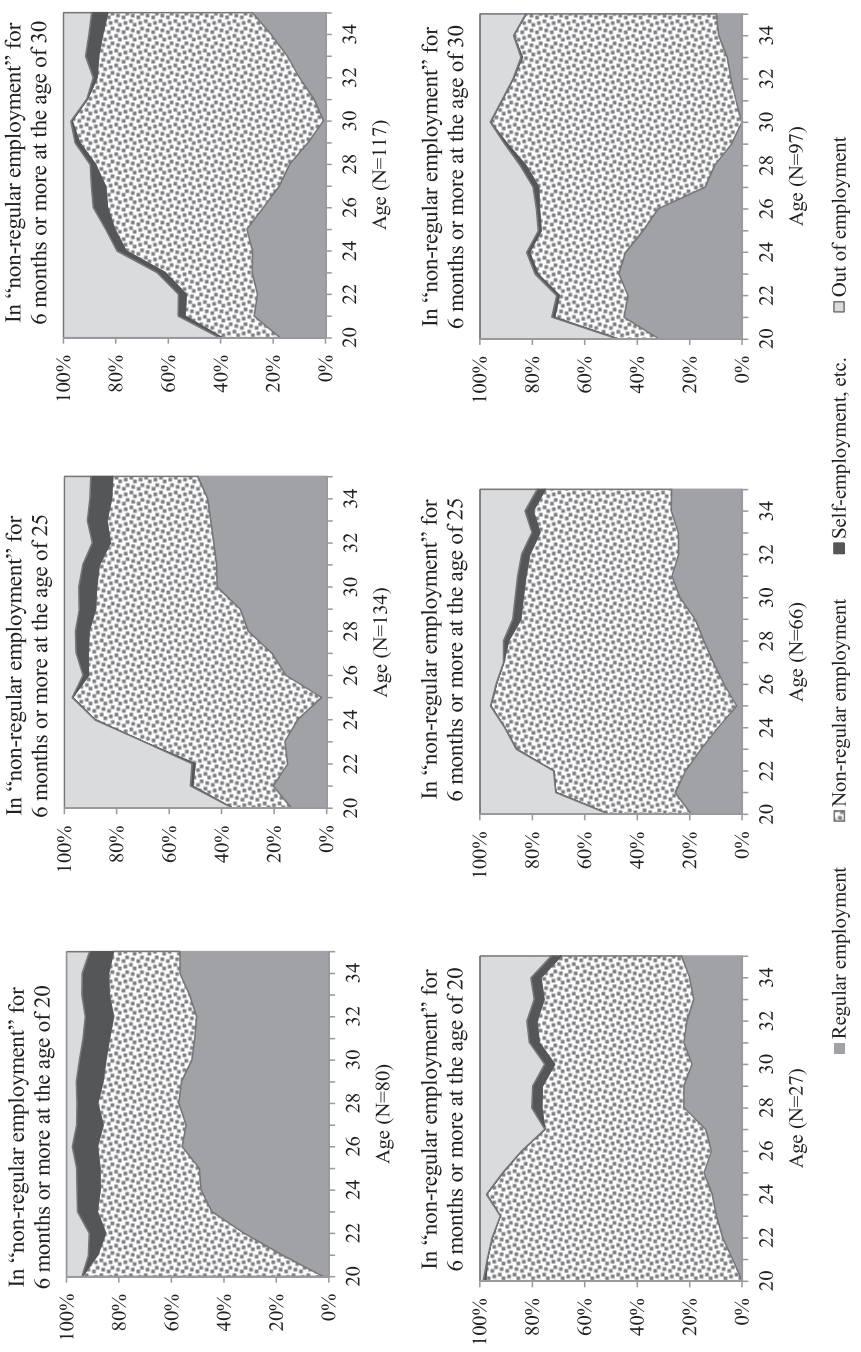
As demonstrated above, a significant number of non-regular workers have experience of regular employment. The above analysis also indicates that one of the causes for such people becoming non-regular workers during the mid-prime-age (age 35–44) period was that they were made to work long-hours or under illegal personal management practices during their time in regular employment. In any event, prior research suggests that the likelihood of young people becoming non-regular workers is influenced by conditions they face *before* entering employment, such as the income of their parents or their own academic abilities. In contrast to this, it can be suggested that in the case of mid-prime-age non-regular workers, it is the circumstances which arise *after* entering employment which lead to them becoming non-regular workers.

V. The Potential and Requisites for Career Enhancement

This section also draws on the findings of the questionnaire survey and interview survey as in the previous section, this time to set out the potential for mid-prime-age non-regular workers to enhance their careers and the conditions required for them to do so.

The Low Probability of Making the Transition to Regular Employment

The harsh reality is that the older a non-regular worker is, the lower the probability that they will be able to make the transition to regular employment in the future. Figure 7 shows people who were non-regular workers for six months or more of the year when they were aged 20, 25, or 30, and the employment types they then entered following non-regular employment. This shows that in the case of males, approximately 50% of those who were non-regular workers at the age of 20 made the transition to regular employment within the



Source: *Questionnaire Survey on Vocational Careers and Working Styles* conducted by the JILPT.
Note: Part-time work during time as a student is not regarded as employment in principle.

Figure 7. Careers after Non-Regular Employment (Upper Row: Males, Lower Row: Females)

following five years. In comparison, the percentage of those who were non-regular workers at the age of 25 who made the transition to regular employment within the following five years was approximately 40%. This figure for those who were non-regular workers at the age of 30 was approximately 30%. While the data for single women is slightly distorted, it has the distinctive feature that the percentage of women who were non-regular workers at the age of 30 and then made the transition to regular employment within the following five years is remarkably low, at around just 10%. On the basis of this data, it can be suggested that there is a lower probability for mid-prime-age non-regular workers to make the transition to regular employment than for early-prime-age non-regular workers.[8]

Making the Transition to Regular Employment by Utilizing Professional Qualifications

At the same time, there are non-regular workers who wish to make the transition to regular employment during the mid-prime-age (age 35–44) period, and are able to actually do so. Analysis of the case records from the interview surveys of ten non-regular workers who made the transition to regular employment in the mid-prime-age period shows that in fact five people (Mr. YO, Ms. YP, Mr. YV, Ms. YX, and Ms. YY) made use of professional qualifications to make the transition to regular employment. The specific details of their cases are described below.[9]

Mr. YO (male, 43 years old) accumulated experience through training at various architecture-related companies after graduating upper secondary school. He then helped at an architecture-related store owned by his father, during which time he acquired a qualification as a registered *kenchikushi* (architect and building engineer) with a license known as "second-class *kenchikushi*." When the store went bankrupt shortly after, he was unemployed for about six months, after which he began work as a regular employee for a housing renovation company. His qualification as a second-class *kenchikushi* was apparently recognized as a valuable asset when he was being considered for the position.

Ms. YP (female, 44 years old) had no experience working as a regular employee from the age of 20 onward. She attended a professional training college for two years on a program through which she received benefits to cover living expenses under a system to support single mothers to acquire qualifications, and received a qualification as a certified care worker. With this qualification, she was able to find work as a regular employee at a private residential nursing home for the elderly.

After quitting his job as a regular employee at a musical instrument store, Mr. YV

[8] Here it is interesting to note that the percentage of mid-prime-age non-regular workers who wish to make the transition to regular employment is by no means low. The results of the questionnaire survey show that the percentages of non-regular workers who responded "yes" to the question "Do you currently feel that you would like to become a regular employee (not necessarily at your current place of employment)?" were 64.7% for early-prime-age males, 68.9% for mid-prime-age males, 54.5% for early-prime-age spouseless females, and 52.9% for mid-prime-age spouseless females.

[9] The summaries given here are as described in Takahashi (2014).

(male, 38 years old) obtained a qualification recognized in the IT industry (not national certification) by attending a vocational training school, while receiving a 120,000-130,000 yen monthly benefit to cover living expenses. Although understandably he was not able to find work as a regular employee immediately after receiving his qualification, after he acquired practical experience in the field by working as a temporary agency worker, he was hired as a regular employee at a software maintenance and support services company.

Ms. YX (female, 43 years old) has a qualification as a childcare worker. When she first began looking for a new job, she was applying for jobs which were not related to her qualification, such as reception work at a hotel, work in a long-established confectionary shop, and work as a caddy at a golf course. However, she persevered in looking for a suitable position, and came across a job vacancy for regular employment as an assistant nurse at a hospital. She immediately applied and was called to an interview, and her qualification as a childcare worker apparently helped her to get the job.

Ms. YY (female, 44 years old) held various jobs between graduating upper secondary school and her mid-thirties, all of which were forms of non-regular employment. In her mid-thirties she took a distance learning course using a system to support single-mothers, through which she completed training as a certified home caregiver, receiving the qualification "second-class home helper." After acquiring her qualification she worked part-time at a home nursing care provider and a home for the elderly, following which she began work as a regular employee of a different home for the elderly.

Mitigating Dissatisfaction through Indefinite Employment

As just mentioned, many mid-prime-age non-regular workers are dissatisfied with their lifestyles. However, there are means of decreasing this dissatisfaction. Analysis conducted by Yasutaka Fukui, a member of the JILPT research group, on the results of the questionnaire survey demonstrates that being in indefinite employment—that is, employment that is not limited to a specific period of time—can help to decrease the dissatisfaction that a mid-prime-age non-regular worker feels regarding their lifestyle.

Table 4 shows the results of ordered logistic regression analysis with males and spouseless female non-regular workers as the analysis subjects and the level of dissatisfaction respondents felt toward their lifestyles as the explained variable.[10] The results demonstrate that while being "mid-prime-age" sees an increase in dissatisfaction, the interaction terms "mid-prime-age" and "indefinite employment" decrease dissatisfaction. Even if mid-prime-age non-regular workers do not convert to regular employment, it is possible that by being in indefinite employment their dissatisfaction with their lifestyle may decrease.

As this section has shown, the probability of making the transition to regular employment is lower for mid-prime-age non-regular workers than it is for early-prime-age

[10] The explained variable was a four-stage scale, in which 4 represents "dissatisfied," 3 represents "somewhat dissatisfied," 2 represents "somewhat satisfied," and 1 represents "satisfied."

Table 4. Factors Contributing to Lifestyle Dissatisfaction

	Coef	SE	
(Unmarried male)			
Married male	-0.147	0.342	
Unmarried female	-0.538	0.228	*
(Lower/upper secondary school, specialized training college, junior college, or college of technology graduate)			
University or graduate school graduate	0.216	0.252	
Equivalent household income	-0.002	0.001	**
(Early-prime-age: age 25−34)			
Mid-prime-age: age 35−44	0.460	0.269	†
(Fixed-term employment)			
Indefinite employment	0.282	0.311	
Mid-prime-age × Indefinite employment	-0.830	0.419	*
τ=1	-3.177	0.400	
τ=2	-0.662	0.346	
τ=3	1.164	0.352	
N	349		
McFadden's R^2	0.022		
AIC	852.002		

Source: Fukui (2014, 170).
Note: Brackets are the reference groups.
†p<.10, *p<.05, **p<.01.

non-regular workers. However, there are examples of non-regular workers who made the transition to regular employment during the mid-prime-age (age 35–44) period, and it is possible that the vocational qualifications of these workers help them in securing such regular employment. It is also possible that making the transition to employment with an unlimited term may help decrease the dissatisfaction mid-prime-age non-regular workers feel regarding their lifestyles.

VI. Conclusion

The focus of this paper was to address the increase in the number of "mid-prime-age non-regular workers" (non-regular workers age 35–44, excluding married women). It set out to outline measures that should be adopted as labor policy, while taking into consideration the differences between mid-prime-age non-regular workers and "freeters" (non-regular workers in the young to early-prime-age bracket [age 34 or under], excluding married women). In the context of these objectives, the analysis in this paper has produced the following conclusions.

In comparison with freeters, mid-prime-age non-regular workers face significant difficulties, particularly in their lifestyles. For example, mid-prime-age non-regular workers

have a greater tendency to find themselves in a state of poverty, and they feel strong dissatisfaction with their lifestyles. The reason for this is that in spite of the fact that as they grow older they are more likely to become responsible for the household finances,[11] unlike the wages of regular employees, their wages do not increase with age. Many mid-prime-age non-regular workers are also in non-regular employment involuntarily. While mid-prime-age non-regular workers are fewer in number than freeters, in light of the level of difficulty they face, and the fact that this is created by the disparities between regular and non-regular employment in the labor market, it is necessary for mid-prime-age non-regular workers to be given consideration in the development of labor policies in the same way as consideration is given to the issues concerning freeters.

The personnel management practices applied to regular workers are thought to be a significant factor behind why people become mid-prime-age non-regular workers. The analysis in this paper has demonstrated that there are a significant number of cases in which people who face long working hours and illegal personnel management practices leave their jobs as regular employees and find themselves in non-regular employment in the mid-prime-age (age 35–44) period. While it is necessary to further develop this analysis to produce quantitative verification regarding the precise causal relationship between such factors and workers leaving their employment, it is possible that it will be important to ensure that personnel management of regular employees is conducted appropriately in order to prevent increases in the number of mid-prime-age non-regular workers.

An effective means of supporting mid-prime-age non-regular workers who wish to become regular employees may be to assist them in obtaining vocational qualifications. Of the ten mid-prime-age regular employees who participated in the interview survey, five were able to successfully make the transition to regular employment by utilizing their vocational qualifications. While it is of course necessary to also support this with quantitative verification, it is possible that, in contrast with the policies for freeters—who require training to develop personal skills—support to allow mid-prime-age non-regular workers to enhance their careers will need to be focused on developing concrete vocational skills and abilities that allow them to be immediately effective in a professional role.

At the same time, even if mid-prime-age non-regular workers do not make the transition to regular employment, if they are able to make the transition to employment with an unlimited term it is possible that their lifestyle may become more stable, and their dissatisfaction with their lifestyle may decrease. Under the amendments made to the Labor Contract Act in 2012, when a worker's fixed-term labor contract has been renewed for more than five years, it is possible for their employment type to be changed to indefinite employment at their request. Ensuring that the aims of this amendment are properly and fully adopted by businesses is another important task that needs to be addressed by labor admin-

[11] The results of the questionnaire survey show that 27.4% of early-prime-age non-regular workers (males: 32.9%; females: 23.6%) and 58.2% of mid-prime-age non-regular workers (males: 58.3%; females: 58.2%) are personally responsible for their household finances.

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JILPT Research Activities

International Seminar

The Japan Institute for Labour Policy and Training (JILPT) and International Labour Organization (ILO) jointly held an International Seminar on the Performance of Prevention and Resolution Mechanisms and Processes for Individual Labour Disputes on February 23rd and 24th, 2015 in Tokyo. The Seminar was conducted as part of a global program of research by the ILO on the theme, which is being undertaken in the framework of the Plan of Action adopted by the ILO Governing Body to implement International Labour Conference conclusions concerning the recurrent discussion on social dialogue (102nd ILC Session of June 2013). The purpose of this research is to examine *which individual dispute prevention and resolution mechanisms and processes work well in different contexts and why*, taking into account the diversity among mechanisms in different countries. Ten experts from Australia, Canada, France, Germany, Italy, Spain, Sweden, the United Kingdom, the United States and Japan attended to present the country reports on the theme, which are intended be published in due course. The authors of the reports are Anthony Forsyth (Australia), Stéphanie Bernstein (Canada), Allison Fiorentino (France), Bernd Waas (Germany), Ilario Alvino (Italy), Ryuichi Yamakawa (Japan), Adoración Guamán (Spain), Jenny Julén Votinius (Sweden), Benjamin Jones (United Kingdom), Aaron Halegua (United States). Revised versions of the papers delivered at the seminar will be published by the ILO, as a joint output of the seminar with the JILPT.

Research Reports

The findings of research activities undertaken by JILPT are compiled as research reports in Japanese. Below is a list of reports published since December 2014. The complete Japanese texts of these reports can be accessed via the JILPT website (http://www.jil.go.jp/institute/pamphlet/). English summaries of selected reports are also available on the JILPT website (http://www.jil.go.jp/english/reports/jilpt_01.html).

Research Reports

No.179 Labor Management Relations in Sweden: With a Focus on Rules concerning Wages and Labor Mobility (“Research Project on Directions for Collective Labor Management Relations in Connection with the Establishment of Norms,” Swedish case) (May 2015)

No.178 Labor Agreement Systems in Modern Industrialized Nations: Company-Based Labor Agreements in France (May 2015)

No.177 Collective Labor Management Relations Systems at the Company/Business Location Level (German case): With a Focus on the Establishment of Norms through Business Location-Based Agreements and Company-Based Labor Agreements (May 2015)

No. 175 The Development of Human Resources Business in the Job Change Market (April 2015)

No. 170 Balancing between Work and Family Care (May 2015)

Research Series

No. 141 Interim Report on the Results of Research on the Hiring and Retention of Employees by Small and Medium-Sized Businesses (May 2015)

No. 140 Results of Research on the Actual State of Diverse Ways of Working Using Telecommunications Equipment (Results of Company Surveys and Employee Surveys) (May 2015)

No. 139 Survey on the Activities and Ways of Working of NPOs (Organization Surveys and Individual Surveys): With Consideration of Activities to Support Reconstruction in Response to the Great East Japan Earthquake (May 2015)

No. 138 Research on the Work and Attitudes of People Who Withdraw from University etc. before Graduating (May 2015)

No. 137 Survey on Recruitment Activities at the Regional Locations of Companies (March 2015)

No. 136 Survey on the Current State of Workloads and Working Environments of Regular Employees (March 2015)

Research Material Series

No.159 Survey on Changes in Means of Finding Employment and Private Employment Placement Agencies (May 2015)

No.158 Basic Research on Japanese Companies Branching Out into China: Part II (May 2015)

No.155 Development of Labor Policy and Government, Labor, and Management Responses in South Korea: With a Focus on Solving Issues concerning Non-Regular Workers (May 2015)

No. 153 Survey on the Various Discussions concerning the Overviews and Effects of Systems outside of Japan for the Intake of Workers from Overseas (May 2015)

No.152 Statistical Analysis of Employment Insurance Services: Part II (May 2015)

No. 150 Public Employment Agencies outside of Japan: UK, Germany, France, and the US (May 2015)

No. 149 Analysis on Construction Workers: With a Focus on Interview Surveys of Construction Business Employers' Organizations, etc. (May 2015)

No. 148 Provisional Report on Trends in Employment Portfolios and Non-Regular Workers Converting to Regular Employment (March 2015)

No.147 Survey on the Labor Dispute Regulations of Electricity Businesses outside of Japan: UK, Germany, France, US, and South Korea (March 2015)

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