

Jobless Youths in Japan

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Abstract

In this paper, we empirically examine the determinants of non-employed young Japanese people, the number of whom increased from the 1990s to the beginning of the 2000s. Non-working unmarried persons aged 15–34, who do not attend school, are classified into ‘job seekers’ who search for jobs, ‘non-seekers’ who wish to work but do not search for jobs, and ‘discouraged’ youths who do not even wish to work. Multinomial logistic regression results show that young persons whose expected returns from working are low, such as females, older people, the less educated, and the long-term unemployed, tend to refrain from working to become non-seekers or discouraged. There is evidence of an income effect that makes youths from wealthy families more likely to be discouraged. However, the number of jobless youths from lower-income households has been increasing and hence, the income effect of discouraging work has been less relevant recently.

1. Introduction

In this paper, we examine the characteristics of jobless youths, whose number is increasing in Japan, by using a large micro-data set.

The Japanese unemployment rate was persistently low for a long period, compared with other developed countries. However, it increased following the collapse of the bubble economy in the early 1990s, and reached its highest recorded level of 5.4 per cent in 2002. Unemployment increased particularly among youths, and the unemployment rate of those aged 20–24 peaked at 12.8 per cent in 2003.¹

While the inability of young unemployed people wanting to work to find jobs has been perceived as a serious social issue, there has also been a focus on jobless youths without looking for a job. These non-employed persons, who are neither workers nor unemployed but are classified as part of the ‘non-labour force’ in the employment statistics, have traditionally comprised full-time housewives, students, and aged persons. However, the number of young and unmarried non-employed persons who have given up searching for jobs has been increasing in Japan since the recession of the 1990s began.

¹ For detailed information on Japanese youth unemployment in the depression of the 1990s, see Genda (2005a). He shows empirically that jobs for young people were slashed to protect the jobs of middle-aged and older workers in Japanese firms.

Japanese policy makers, the media, and researchers refer to youths who are not in education, employment, or training as 'NEETs'. The abbreviation is now well known in Japan (Genda and Maganuma 2004; Kosugi 2005). However, there is little reliable empirical research on the characteristics of these jobless youths.

One reason why few facts have been accumulated is that most existing studies are limited to examining small sets of data on jobless youths. They have used data sets of no more than 200 observations, hence the reliability of their results is questionable.

In this paper, we use a rich source of reliable micro data in the form of the *Employment Status Survey* (*Shugyo Kozo Kihon Chosa* in Japanese), which enables us to undertake a detailed investigation of jobless youths. This survey carefully examines the working and non-working situations of about one million persons aged 15 and over. The survey is conducted every five years by the Statistics Bureau of the Japanese Government.

This paper is organized as follows. In Section 2, we define the jobless young persons on which we focus in this paper and classify them into three types. In Section 3, we report the numbers of jobless youths in each category according to the micro data. In Section 4, we describe the data and explain the empirical hypothesis based on simple economic theory. In Section 5, we present the empirical results on the characteristics of the young jobless. In Section 6, we

discuss the income effect on discouraged workers. In Section 7, we offer concluding remarks.

2. Classification of jobless youths

To examine joblessness objectively, we distinguish the situations in which the jobless find themselves into three categories. These categories are based on the job search activities of the jobless and their willingness to work.

Many jobless youths are willing to work and search for job opportunities or try to start their own businesses. The terminology used to describe the statistics on job search must be consistent with actual job-seeking behaviour. For example, the jobless ask their relatives to set up job opportunities; they register at public job centres; or they pursue job advertisements in newspapers and magazines. Those who wish to work for earnings and actually search for jobs are defined as 'job seekers' (type 1). Type 1 jobless people are typically represented as the 'unemployed' in the labour force statistics, such as those published in the labour force surveys conducted by the Japanese government.

Some jobless youths do not search for jobs, although they do want to work. In the labour force surveys, these persons are not typically included in the unemployed but form part of the non-labour force. This is because they do not actively look for work. To distinguished them from type 1 jobless people, these

jobless people can be classified as 'non-seekers' (type 2).

In addition to job seekers and non-seekers, there are jobless youths who do not want to work. They can be categorized as 'discouraged' jobless (type 3). The discouraged jobless do not look for jobs.

Currently, a new category of jobless young persons, termed NEETs, who are not in education, employment or training, is attracting attention in Japan. This term originated in the United Kingdom, where it describes recent school graduates aged 16–18.² The Japanese NEETs can be defined as the sum of non-seekers and discouraged young jobless people, who are similar in that they do not search for jobs (Genda 2005b). The Japanese NEETs are distinguished from job seekers, who are considered unemployed persons.

3. Numbers of jobless youths

Using the *Employment Status Survey*, we first determine the numbers of jobless youths and their classifications. This original survey carefully examines about 400,000 households comprising about one million individuals aged 15 or over to describe their current work status. The survey is conducted every five

² The original definition of those not in education, employment, or training in the United Kingdom is given in a report entitled *Bridging the Gap*, produced by the government's Social Exclusion Unit in 1998.

years by the Statistics Bureau. The Research Centre for Information and Statistics of Social Science at the Institute of Economic Research at Hitotsubashi University offers micro data from the *Employment Status Surveys* of 1992, 1997, and 2002 for the purposes of academic research. The data are randomly re-sampled from the survey by choosing 80 per cent of the original observations. Observations for households comprising nine or more members are excluded.

In this paper, we focus on people aged 15–34 who satisfy the following conditions: (1) they do not attend school (high school, university, preparatory school, or professional school); (2) they are unmarried; and (3) they typically do not do paid work. In what follows, the term ‘jobless youths’ refers to non-working young people who satisfy these criteria. Table 1 reports the observations and estimated numbers of these young people.³ The numbers of observations on jobless youths is 9,254 for 1992, 11,812 for 1997, and 13,389 for 2002. Thus, for each year, the observation size is sufficient⁴.

³ The Employment Status Survey estimates the population by using multipliers taken from the latest National Census conducted by the Statistics Bureau of the Japanese Government. In this paper, the estimated number of jobless youths is further multiplied by 1.25. This is because the available data represent 80 per cent re-sampling of the original data sets.

⁴ Small numbers of unknown observations exist in these jobless about the job search activities and willingness to work, and they cannot be distinguished into three types.

The estimated numbers of each of the different types of joblessness are reported in Table 1. Job seekers numbered 636,000 in 1992, which doubled to 1,277,000 in 2002. This reflects a rapid increase in the unemployment rate of young people in Japan from the 1990s to the early 2000s.

Non-seekers numbered 422,000 in 2002, a figure which substantially increased from 163,000 in 1992. In the context of this increase, Figure 1 from Genda (2005b:Chapter 7) shows that numbers suffering from illness or injury increased, as did the numbers of those who could not find any kind of jobs, those unable to get good jobs, and those who lost confidence in their working ability.⁵

About 70 per cent of the type 2 jobless people in poor health had experienced work at least once before exiting the labour force. It may be that some Japanese NEETs were injured at work or quitted because of intense pressures arising from their firms shifting from the seniority rule to merit-based assessment. Although we cannot have the data to determine the specific type of illness or injury they might have suffered from, the deterioration of workplace environments, including the introduction of persistently long working hours for young employees and increasing mental diseases within firms, may have contributed to an increase in the number of NEETs.

⁵ The conclusions of Genda (2005b) are also based on micro data from the Employment Status Survey.

Unlike those of job seekers and non-seekers, the number of discouraged jobless has been quite stable at around 400,000 throughout the period. Many discouraged jobless have no work experience. For each jobless type, Figure 2 from Genda (2005b:Chapter 8) illustrates the proportion with previous work experience. About 70 per cent of type 3 jobless youths have never experienced work. Corresponding figures for types 1 and 2 are 22 per cent and 38 per cent, respectively. Even among discouraged jobless aged 30–34, only 37 per cent have work experience.

Discouraged NEETs may be associated with another serious social problem among Japanese young people; that is, they may withdraw from society, lose contact with others, and be isolated at home for long periods. Saito (2004) suggests that persons who are socially withdrawn, those known as *hikikomori* in Japan, may number at least 400,000. They are aging, and currently include those aged 30 or over. Their aging contributes even more to their difficulties in forming social relationships.

4. Data and hypothesis

This section and the next one examine the determinants of youth joblessness. The *Employment Status Survey* contains many questions capable of generating explanatory variables that may affect the classification of jobless youths.

Table 2 lists the variables used for estimation, and their per cent among the total jobless youths in 2002. Variables representing individual characteristics that may affect the types of joblessness include age, gender, educational background, and previous work experience.

People who resign from work become either non-seekers or discouraged by definition. Theoretically, jobless persons whose opportunity costs of not working are low prefer to be NEETs than to look for a job. In other words, the jobless are more likely to be of type 2 or 3 if they judge their expected returns from working to be low. Such returns may comprise earnings, job stability, job satisfaction, and so on.

There are clearly substantial wage differentials caused by gender and education in the Japanese labour market. Other things being equal, the expected returns are lower for females and the less educated.⁶ In addition, the total discounted present value of lifetime earnings after getting a job would be smaller for seniors, even among young people. Hence, older jobless persons may be more likely to become NEETs than job seekers.

⁶ Tachibanaki *et al.* (1998) compare the wage differential structures of several industrialized nations and study the relative importance of gender, occupation, age, and industry. They find that gender plays the most important role in explaining wage differentials only in Japan (Genda 1998:35–71).

The expected returns from working depend not only on earnings, but also on job prospects. In Japan's job market, employment conditions that are consistent with the high and stable incomes generated by regular employment tend to be concentrated on young male college graduates. Previous studies suggest that many Japanese females who have quitted their jobs do not look for new ones, but choose instead to leave the labour force and undertake unpaid housekeeping by becoming housewives (see, for example, Tachibanaki and Sakurai 1991). Therefore, jobless females are less likely to be type 1 than type 2 or type 3, compared with jobless males.

Jobless people who lack work experience and have had lengthy spells of non-employment send negative signals to employers about their ability to work and their labour productivity in the job market. Employers perceive the long-term jobless as facing employment difficulties, and may hesitate to hire them. Consequently, the long-term jobless tend to stop searching for work.

The characteristics of the households to which young persons belong may influence the type of joblessness. Total annual pre-tax household income for the past year is recorded in the data.⁷ Simple economic theory can explain how

⁷ The following items are excluded from the total income of a household: money from the sale of disposing of real estate; drawings from deposits; savings; and temporary income from inheritances, donations, retirement, etc.

income affects decisions about joblessness; from the viewpoint of utility maximization with respect to consumption and leisure, a household with a high income enables its members to reduce labour supply if leisure is assumed to be a normal good. Therefore, jobless youths from high-income households abstain from job search, or cannot be persuaded to work.

In contrast, members of low-income households, particularly the heads of such households, must search for jobs. The data classify household types and distinguish single-mother households and one-person households from others.⁸ Predictably, single-mother households and one-person households need work in order to earn their livelihood.

5. Estimation results

By using micro data from the *Employment Status Survey* for 2002, we estimate a multinomial logistic regression model to explain how jobless youths are allocated among the three types. We use this model to investigate the probability that jobless persons become non-seekers or discouraged rather than job seekers. Table 3 reports the estimated marginal effects, which represent each variable's contribution to the probability of a person being of type 2 or 3 rather than type 1.

⁸ Single-mother households are defined as those whose household heads are the unmarried female in which the mother lives with her children aged 17 or less.

These effects are all evaluated for changes from zero to one in the corresponding dummy variables at the means of other explanatory variables.

All coefficients for age under 24 years old are negative and significant. This implies that jobless persons aged 15–23 are more likely to become type 1 than type 2 or 3. Younger persons take advantage of job opportunities better than do older persons: they search for appropriate jobs, and, as a result, they form part of the unemployed rather than the non-labour force. The coefficients for being aged 31–34 are significantly positive for the discouraged jobless. Jobless persons aged over 30 tend to give up a wish for work because they find it difficult to get jobs and expect a low return from working were they to get jobs.

The effect of female dummy is negative and significant for both types 2 and 3. Jobless females are less likely to search for jobs or to want to work than are jobless males. This result is consistent with our earlier prediction, and indicates evidence that women are discouraged from being in the labour force in Japan.

Educational background affects the type of joblessness. Relative to high-school graduates, college graduates and junior college graduates are more likely to search for jobs rather than refrain from working. Jobless persons who did not graduate from high school, including school dropouts, are more likely to be non-seekers or discouraged than job-seekers.⁹ The opportunity costs of not

⁹ For 1992, Genda (2005b) shows that the proportion of junior high-school graduates,

working are higher for educated persons.

The marginal effect of previous work experience implies that jobless persons, who did not work one year ago but have ever worked in the past, are less likely to look for jobs or are more likely to lose a wish for work in comparison with those who worked one year ago. Further, jobless youths who have never worked tend to stop looking for work and become type 2 or 3 jobless rather than type 1.

The estimated effects of household income suggest that the income effect on labour supply can partly explain why some NEETs refuse to work. The coefficient for the highest annual household income category of 15 million yen or more, that is almost equal to 67,000 pound and 130,000 U.S. dollars at the exchange rate in 2006, is significantly positive for jobless type 3. Jobless youths belonging to high-income households tend to be discouraged because they can rely on the support of family members, particularly parents. By contrast, jobless youths from lower-income households cannot afford leisure time. The coefficients for lower-income households are negative and several are statistically significant.

Our results support the hypothesis that the theoretically predicted opportunity-cost and income effects explain the distribution of jobless types.

including high-school dropouts, was 28.6 per cent for jobless type 3, 23.9 per cent for type 2, 16.0 per cent for type 1, and 7.8 per cent for all unmarried persons aged 15–34.

However, the estimation results for household types do not necessarily support our prediction. The coefficients for single-mother households are all insignificant. The figures for single mothers reveal no significant difference between the three jobless types, even though one would expect most of them to need jobs. In addition, one-person households tend to be classified as the discouraged type. It is not clear why single-mother and one-person households do not actively seek work. However, the public support system, incorporating social security and welfare benefits, and the private support of parents living separately from them alleviate financial hardship.

6. Declining income effect

In this section, we show that during the recession of the 1990s and early 2000s, a large decline in family income had a substantial effect on the discouraged type of NEETs in Japan.

When NEETs first emerged as an issue, the criticism was that they might simply be the spoiled children of rich parents, and that they avoided even attempting to work. Indeed, the estimation results reported in the previous section suggest the presence of an income effect that leads higher annual household incomes to further discourage jobless youths from working. However, many of the discouraged jobless recently come from economically disadvantaged

families.

Indeed, some jobless youths did come from wealthy families; as Figure 3 shows, more than 20 per cent of households with discouraged jobless people earned more than 10 million yen per year in the 1990s. However, this proportion fell from 23 per cent in 1997 to 14 per cent in 2002.

Figure 4 shows that the proportion of families with an annual income of below three million yen is consistently higher for jobless youths than for unmarried 15–34 year olds who do not attend school. Moreover, the proportion of jobless young people from poor families increased substantially between 1997 and 2002. The percentage of households with annual incomes of less than three million yen was particularly high among the discouraged jobless, and this proportion has risen steadily; by 2002, it was expected to reach almost 40 per cent.

To confirm the change in the income effect, we compare the effects of annual household income on the probability of youths belonging to jobless type 3 in 1992, 1997, and 2002. Specifically, we estimate the same form of regression model shown in Table 3 for each year. Table 4 shows the estimated marginal effects of household income on being jobless type 3. Therefore, the figures for 2002 correspond to those in Table 3.

The marginal effects of annual households earning 15 million yen or more

are significantly positive for each year. The absolute values for 1992 and 1997 are 0.0964 and 0.1050, respectively, which falls to almost the halves of 0.0532 for 2002. Whereas annual household income of 10–15 million yen had significantly positive effects for 1992 and 1997, the effect was insignificant for 2002. These results suggest that the positive effect of higher income on the probability of belonging to jobless type 3 diminished during the period.

At the same time, jobless youths from lower-income households became less willing to work. Table 4 reports a significantly negative income effect of 1–2 million yen for 1992 and 1997. However, the effect was insignificant for 2002. The marginal income effect of 2–3 million yen was negative and significant throughout the period, but the effect was gradually weakening. An increasing proportion of jobless youths, even those from poor households, are discouraged to work, leaving the labour force for some reason.

7. Conclusion

We have used Japanese micro data to examine jobless youths who are neither in education, employment nor training (the so-called 'NEETs'). The NEETs are defined in Japan as jobless unmarried youths who do not look for a job. We found that basic economic theory can explain why some jobless people prefer not to work in Japan. Jobless persons with low expected returns from

working (low opportunity costs of not working) are less likely to look for jobs. Typically, such jobless youths include seniors, females, the less educated, and the long-term non-employed.

In Japan, one's educational attainment has a strong effect on whether one will become a NEET. In addition, female and senior jobless persons with little working experience are disadvantaged in the job market because of gender inequality and a high concentration of job opportunities among the younger and higher educated persons.

We also found evidence of an income effect that tends to discourage jobless youths in high-income households from working. However, the strength of this income effect is declining. Because young people from poor families are more likely to end up in jobs with poor working conditions, they are less likely to want to work, becoming NEETs as a result.

These results suggest that social structural backgrounds of non-employed Japanese youths should be considered in addition to the economic determinants of youth unemployment. The term NEETs originated in the United Kingdom. There, teenagers who are not in education, employment, or training are, at least in part, the product of a strong hierarchical social structure; that is, jobless youths are not jobless simply because of the lack of a work ethic, but because of a social class structure over which they have no control. In Japan, young people

from disadvantaged families or disadvantaged social backgrounds, as well as those from underprivileged classes, may also be more likely to be discouraged from working.

Further, some young employees in Japan suffer work-related illnesses, particularly work stress and 'burn-out', and this may force them to quit work and end up as NEETs.

The altered structure of class relationships and the accompanying social segmentation that evolved during the long recession, which in turn has generated deteriorating working conditions, and the presence of so many NEETs are all products of the changes in the social structure of Japanese society that have taken place in the 1990s and 2000s.

Acknowledgement

For this research, we used micro data from the *Employment Status Surveys* for 1992, 1997, and 2002, which were provided by the Research Centre for Information and Statistics of Social Science at the Institute of Economic Research at Hitotsubashi University. The data provided are strictly confidential.

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Figure 1. Reasons for not looking for a job
(Non-seeker Type, 10,000 persons)

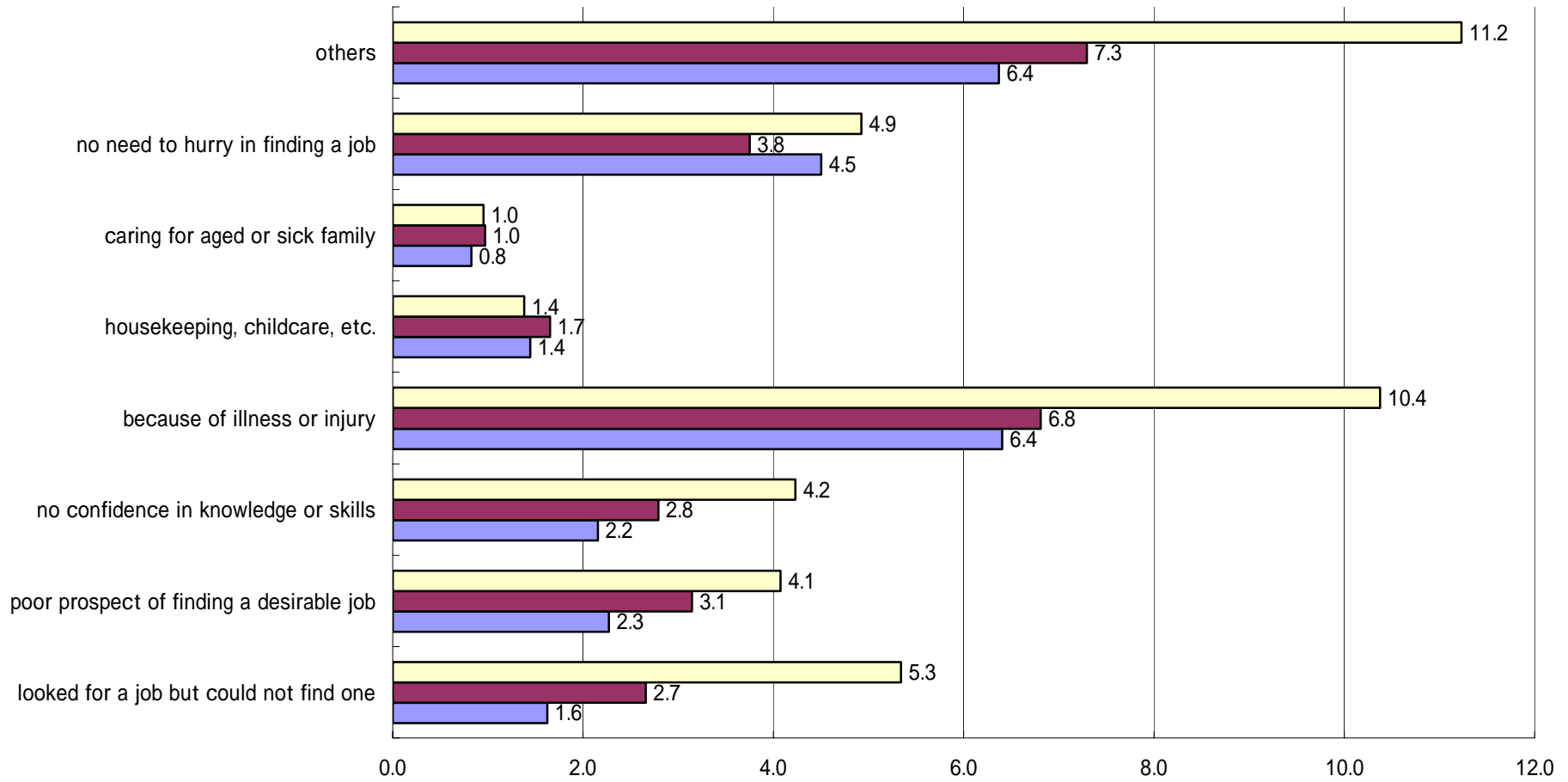


Figure 2. Proportions of previous work experience by jobless youth type (per cent)

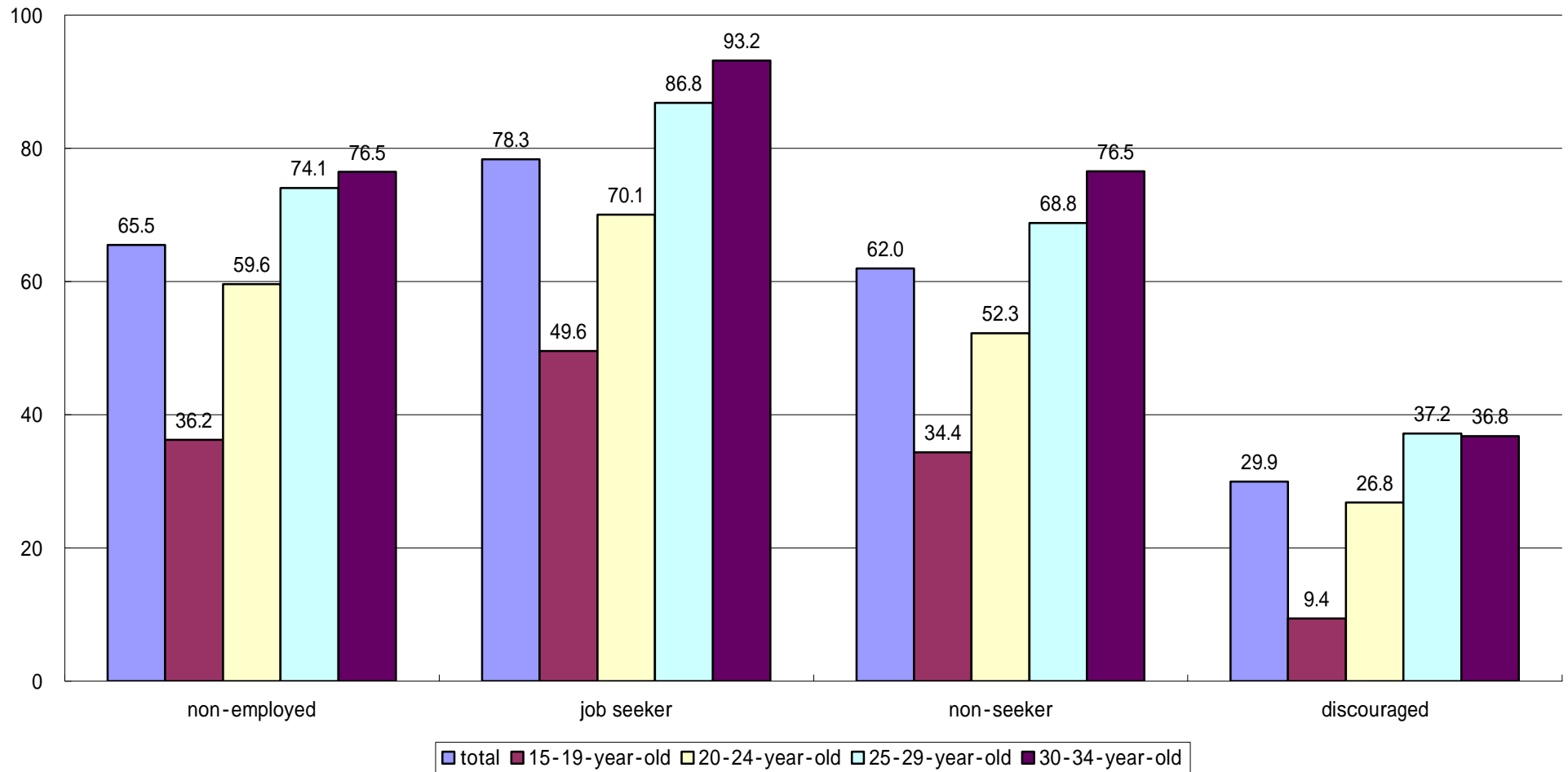


Figure 3. Proportion of household income which is more than 10 million year per year (per cent)

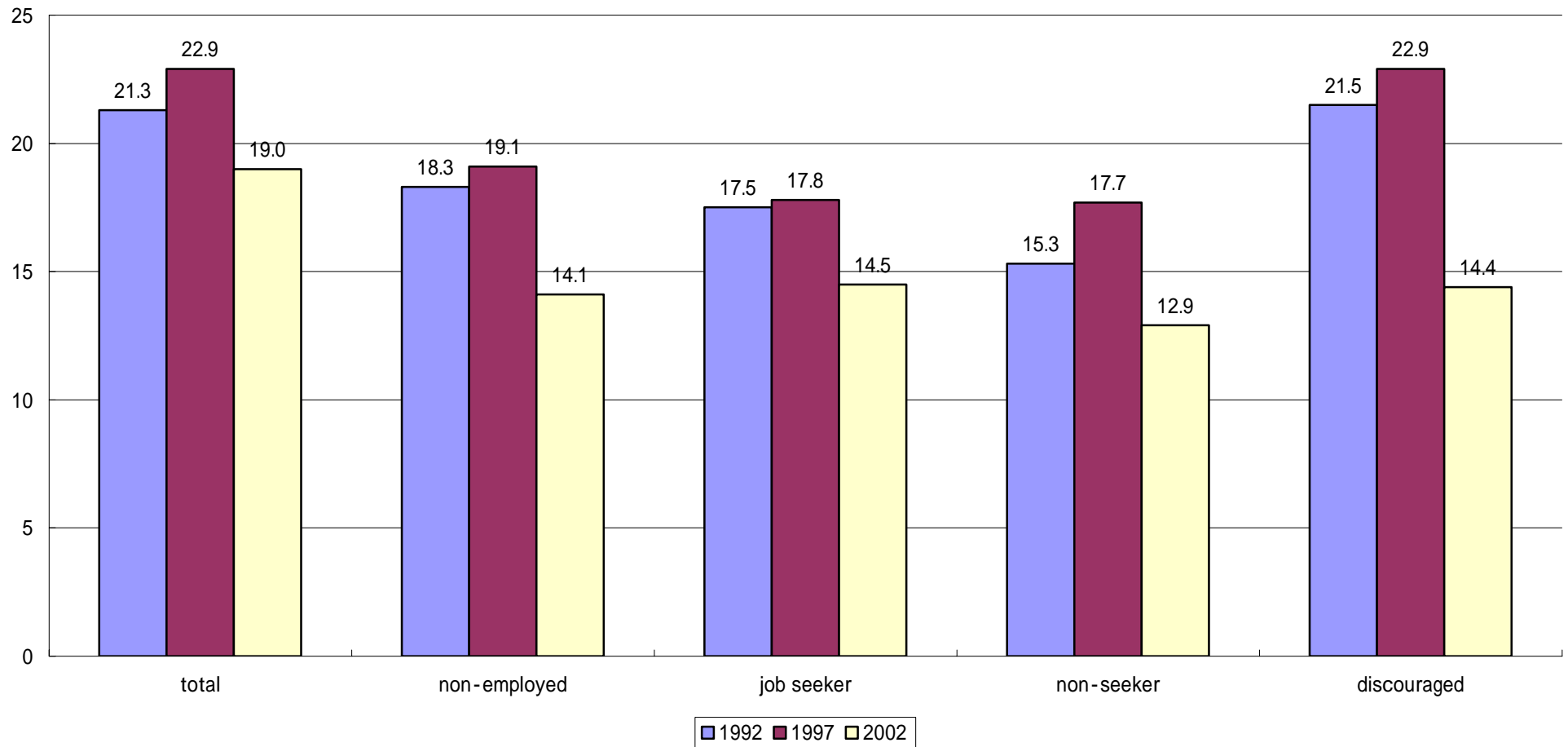


Figure 4. Proportion of household income which is less than 3 million yen per year (per cent)

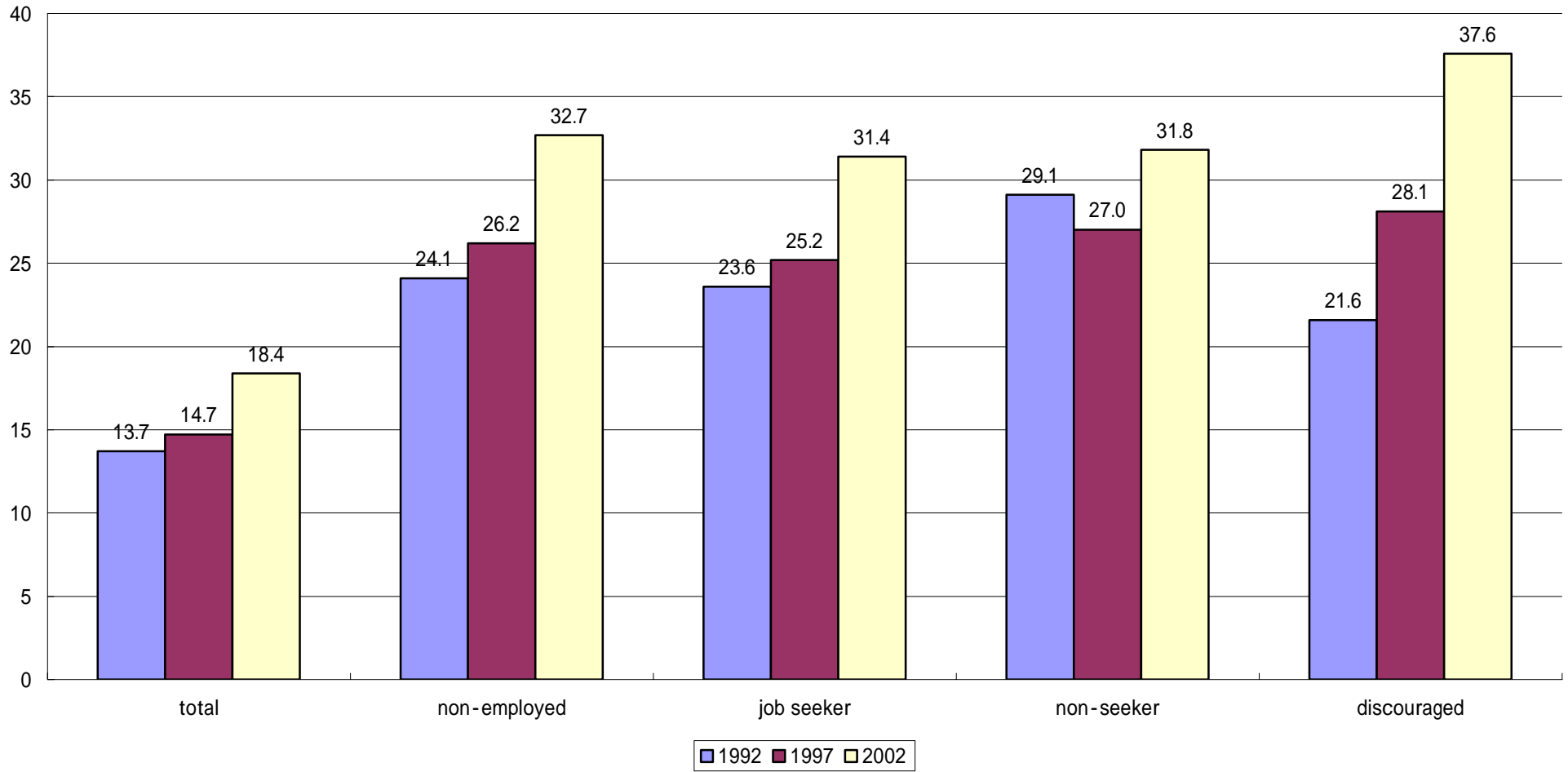


Table 1. Compositions of employed and non-employed unmarried youths aged 15-34 who do not attend school

Year	Observations			Estimated Number (10,000 persons)		
	1992	1997	2002	1992	1997	2002
Total	102,982	105,832	90,350	1,452.6	1,547.7	1,518.1
Employed	93,728	94,020	76,961	1,320.0	1,373.9	1,304.2
Non-employed	9,254	11,812	13,389	132.5	173.9	213.9
Job seeker type	4,495	6,707	7,882	63.6	99.5	127.7
Non-seeker type	1,818	2,024	2,667	25.9	29.4	42.2
Discouraged type	2,936	3,072	2,746	42.8	44.9	42.2

Table 2 . Independent variables and the per cent of total jobless youths
(Those unmarried and aged 15 to 34 who do not attend school in 2002)

	observations	per cent
total	13,295	100.00
age		
15 to 19	1,766	13.28
20 to 24	4,362	32.81
25 to 29	4,092	30.78
30 to 34	3,075	23.13
sex		
male	7,024	52.83
female	6,271	47.17
education		
junior high school graduated	2,947	22.17
high school graduated	6,659	50.09
junior college graduated	1,948	14.65
college graduated	1,643	12.36
unknown	98	0.74
previous work experience		
worked one year ago	4,321	32.50
did not work one year ago, but have ever worked	4,146	31.18
have never worked	4,795	36.07
unknown	33	0.25
annual household income		
less than 1 million yen	1,488	11.19
1 to 1.99 million yen	1,410	10.61
2 to 2.99 million yen	1,430	10.76
3 to 3.99 million yen	1,452	10.92
4 to 4.99 million yen	1,241	9.33
5 to 5.99 million yen	1,097	8.25
6 to 6.99 million yen	985	7.41
7 to 7.99 million yen	836	6.29
8 to 8.99 million yen	751	5.65
9 to 9.99 million yen	629	4.73
10 to 14.49 million yen	1,305	9.82
15 million yen or over	403	3.03
unknown	268	2.02
household type		
one-person household	1,511	11.37
single-mother household	325	2.44

Table 3. Marginal effects of multinomial logistic regression model
(Relative probabilities of non-seeker and discouraged type based on job seeker type in 2002)

Dependent Variables	non-seeker type			discouraged type		
	marginal effect	z-value		marginal effect	z-value	
age (25 years old)						
15 years old	-0.1322	-4.25	***	-0.0870	-4.64	***
16 years old	-0.1032	-4.48	***	-0.0948	-8.39	***
17 years old	-0.1037	-4.72	***	-0.1011	-9.99	***
18 years old	-0.0951	-5.60	***	-0.0544	-4.24	***
19 years old	-0.0879	-5.22	***	-0.0381	-2.70	***
20 years old	-0.0700	-3.92	***	-0.0528	-4.07	***
21 years old	-0.0460	-2.38	**	-0.0509	-3.79	***
22 years old	-0.0474	-2.50	**	-0.0270	-1.75	*
23 years old	-0.0396	-2.07	**	-0.0374	-2.58	***
24 years old	-0.0109	-0.53		-0.0241	-1.51	
26 years old	-0.0188	-0.92		0.0159	0.80	
27 years old	-0.0131	-0.63		0.0146	0.73	
28 years old	-0.0099	-0.46		0.0334	1.53	
29 years old	-0.0082	-0.38		0.0096	0.49	
30 years old	0.0310	1.28		0.0312	1.37	
31 years old	0.0115	-0.49		0.0569	2.30	**
32 years old	-0.0113	-0.50		0.1092	3.85	***
33 years old	0.0263	1.04		0.0929	3.32	***
34 years old	-0.0088	-0.38		0.1111	3.78	***
sex (male)						
female	0.0478	5.94	***	0.0670	10.32	***
education (high school)						
junior high school graduated	0.0642	5.64	***	0.0464	5.25	***
junior college graduated	-0.0519	-4.78	***	-0.0644	-8.27	***
college graduated	-0.0481	-4.14	***	-0.0960	-14.14	***
unknown	-0.1236	-2.28	**	0.3459	3.60	***
work experience (worked one year ago)						
did not work one year ago, but have ever worked	0.1428	12.01	***	0.1282	9.74	***
have never worked	0.1080	9.92	***	0.4200	33.23	***
annual household income (6 to 6.99 million yen)						
less than 1 million yen	-0.0251	-1.27		-0.0253	-1.72	*
1 to 1.99 million yen	-0.0427	-2.48	**	-0.0211	-1.52	
2 to 2.99 million yen	-0.0337	-2.02	**	-0.0282	-2.18	**
3 to 3.99 million yen	-0.0190	-1.10		-0.0287	-2.20	**
4 to 4.99 million yen	-0.0092	-0.51		-0.0126	-0.88	
5 to 5.99 million yen	0.0235	1.18		-0.0255	-1.82	
7 to 7.99 million yen	-0.0080	-0.40		0.0069	0.40	
8 to 8.99 million yen	0.0171	0.79		0.0120	0.66	
9 to 9.99 million yen	-0.0325	-1.57		-0.0131	-0.77	
10 to 14.49 million yen	-0.0278	-1.59		0.0114	0.71	
15 million yen or over	-0.0043	-0.17		0.0532	2.09	**
one-person household	-0.0107	-0.64		0.2086	9.81	***
single-mother household	0.0024	0.10		-0.0251	-1.30	
Observations	13,006					
Log likelihood	-10,360.47					
Pseudo 2	0.1655					

Note. A base group is the job seeker type. The z-value is asymptotic t-value. Those in parentheses are the reference group for corresponding dummy variables. ***, **, and * represent significance levels of 1%, 5%, and 10%.

Table 4 . Changes in marginal effects of household income on being the discouraged type
(Relative probabilities of discouraged type based on job seeker type)

year	1992	1997	2002
annual household income (6 to 6.99 million yen)			
less than 1 million yen	0.0166	0.0216	-0.0253 *
1 to 1.99 million yen	-0.0536 **	-0.0427 **	-0.0211
2 to 2.99 million yen	-0.0533 **	-0.0332 *	-0.0282 **
3 to 3.99 million yen	-0.0355 *	-0.0332 *	-0.0287 **
4 to 4.99 million yen	-0.0300	0.0023	-0.0126
5 to 5.99 million yen	-0.0256	-0.0140	-0.0255
7 to 7.99 million yen	-0.0026	-0.0048	0.0069
8 to 8.99 million yen	0.0228	0.0239	0.0120
9 to 9.99 million yen	0.0302	0.0366	-0.0131
10 to 14.49 million yen	0.0938 ***	0.0756 ***	0.0114
15 million yen or over	0.0964 ***	0.1050 ***	0.0532 **

Note. The regression model in each year is the same one shown in Table 3. Significant at levels at 1 (***), 5(**), and 10(*) per cent.