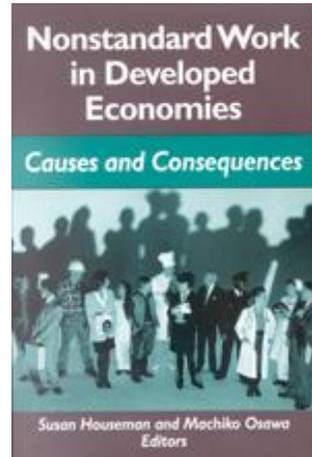# Standard and Nonstandard Work Arrangements, Pay Difference, and Choice of Work by Japanese Mothers

Nobuko Nagase
Ochanomizu University

8
Standard and Nonstandard Work Arrangements, Pay Difference, and Choice of Work by Japanese Mothers

Nobuko Nagase
Ochanomizu University

In this chapter, we analyze two questions. First, how do marriage and children affect women's choices among full-time regular employment and part-time employment and no work; and do they differ by cohorts and by the educational attainment of females? Second, why is the part-time employment wage so low in Japan, and why do increasingly more females still choose to work part-time?

The age profile of female labor participation still retains an M-shape in Japan: labor force participation rises at first with age, declines during women's childbearing years, and rises again with age until retirement ages. In contrast, in the United States, the United Kingdom, Germany, France, and in many other western countries, the profile has slowly changed to a high plateau over the last 20–30 years. Has the work behavior also changed for the younger cohorts in Japan? To address this question we use microdata from the Eleventh Japanese National Fertility Survey–Married Wife, collected by the National Institute of Population and Social Security Research in 1997. To explore the second question of why the wage level of part-time workers remained low despite the general increase in demand for part-time workers, and the increase in part-time work, we use the Survey on the Diversified Workers at Workplace, conducted by the Japan Labor Institute in 1999. The chapter attempts to show what effects the tax and social security system had, together with labor practices, in keeping the part-time wage rate low.

The outline of this chapter is as follows. We first report the general time trends of Japanese female labor using descriptive statistics. In

contrast to other western countries reviewed in this volume, many married females have worked as informal family workers in the past. The emerging part-time employment opportunities coincided with the decline in informal work opportunities in the 1980s. Part-time employment further increased among unmarried females, the aged, and young males in the 1990s. We then examine specific features of Japanese nonstandard work, its definition, and time trends in wage levels. In the third section, we analyze the important policy changes in recent years that have strongly influenced women. Although the Equal Employment Opportunity Law and Child Care Leave Law promoted equality between the sexes and continued labor force participation, the tax and social security reform encouraged wives to remain as secondary earners, especially in part-time work. These early sections, therefore, offer general and up-to-date information concerning female labor in Japan. In the fourth section, we examine marriage and childbirth and the mother's choice of no work, regular work, or nonstandard work using descriptive statistics and multinomial logit analysis of microdata. Although the younger generations are more likely to continue to work after marriage, the majority of women still quit work after the birth of their first child. The less educated are more likely to return to nonstandard work arrangements. The more educated may have a higher attachment to work during child-rearing years, but they are less likely to return to work once they interrupt their first career. In the following section, the wage structure of nonstandard employees is estimated, and the effect of the tax and social security tax system on wage is discussed. The chapter ends with concluding remarks.

GROWTH OF NONSTANDARD WORKERS

Japan perhaps contrasts with other countries in this volume in that about 40 percent of all married female labor participants were in self-employment as late as the 1980s. Self-employment includes family workers or the self-employed in small family-owned stores, small family-run manufacturing, or in agriculture. Table 8.1 shows that part-time and other nonstandard employment rapidly replaced self-employment. In 1987, self-employment comprised 36 percent of the married

Table 8.1 Trends in Labor Participation and Type of Work (%)

	Labor participation[b]	Self-employed[c]	Dependent employment[a]			
			Total	*Seishain*	Part-time[d]	Others[e]
Male						
1982	79	22	78	66	2	4
1987	77	20	80	67	3	3
1997	76	16	84	68	5	3
Female						
1982	49	34	66	43	17	3
1987	48	30	70	43	22	3
1997	50	20	80	43	30	4
Married female[f]						
1982	44	42	58	32	20	3
1987	50	36	63	31	26	3
1997	51	26	74	32	35	3

[a] As a percentage of all employed. Dependent employment = *Seishain* (regular workers) + Part-time + Others + Executives of corporations.
[b] As a percentage of working-age population.
[c] As a percentage of all employed. Self-employed includes family workers.
[d] Part-time includes *arubaito.*
[e] Others include dispatched workers and *shokutaku.*
[f] Spouse of household heads in an ordinary household.
SOURCE: Statistics Office Basic Employment Survey.

female labor force, and nonstandard work comprised 26 percent; in 1997, the percentage was just about the opposite, 26 percent for the former and 35 percent for the latter. Table 8.1 also shows that the percentage of such nonstandard employment and informal sector work was much lower for males and for females, if unmarried females are included.

Because the increase in part-time employment offsets the decline in informal sector work, Nitta (2001) attributes the increase in part-time work to supply-side matters. Indeed, many married women chose this form of work to better coordinate household chores and market work. According to the Statistics Office Basic Employment Survey, the percentage of workers who replied that they are "mainly working"

remained at about one-fourth of all married females throughout the 1980s and 1990s, despite the rise in the labor participation rate. On the other hand, those who replied that they are "working as secondary activities" increased from 20 percent to 25 percent of married females.

Tables 8.2 and 8.3 show how women's work choices differ by family characteristics. Table 8.2 shows that single women have a high labor force participation rate, at around 90 percent, and also have a high share of regular full-time work (around 80 percent) for the 25–34

Table 8.2 Labor Force Participation: Single Women and Married Women without Children

		Age					
	Total	15–24	25–34	35–44	45–54	55–64	65+
Single women							
Population size (in 10,000)	758	104	114	47	61	90	342
Labor participation rate (%)	45	60	94	91	85	56	9
Wage and salaried earners to labor force participants (%)	88	98	94	93	84	83	50
Nonagricultural wage and salaried earners (%)[a]							
Regular employees	68	64	80	75	67	47	38
Part-time and *arubaito*	28	34	14	19	31	45	54
Dispatched workers	2	0	3	3	0	3	–
Shokutaku and others	3	2	3	6	3	5	8
Married women (with no children or other relatives in household)							
Population size (in 10,000)	996	14	164	78	152	294	311
Labor participation rate (%)	43	50	65	65	64	45	15
Wage and salaried earners to labor force participants (%)	72	100	94	85	74	63	30
Nonagricultural wage and salaried earners[a] (%)							
Regular employees	47	57	56	49	46	38	43
Part-time and *arubaito*	46	27	35	46	50	58	50
Dispatched workers	2	0	4	2	1	0	–
Shokutaku and others	5	0	6	5	4	5	14

[a] Percentage may not add up to 100 because of rounding.
SOURCE: Labor Force Special Survey 2001 and 2000.

Table 8.3 Labor Participation Pattern, Married Women by Age of Children

	Age of the youngest child							No. of children		
	0–3	4–6	7–9	10–12	13–14	15–17	18+	1	2	3+
Population size (in 10,000)	326	166	141	140	101	173	701	774	735	239
Labor participation: nuclear family (%)	28	46	62	63	71	69	56	47	54	54
Labor participation: extended family (%)	40	63	79	78	81	81	71	67	70	74
Nuclear/all families (%)	85	79	76	71	69	72	83	85	77	70
For married women of nuclear families										
Percentage of total population[a]										
Regular employees	12	15	13	16	19	18	15	15	14	13
Part-time and *arubaito*	8	21	32	34	36	38	25	20	28	27
Dispatched workers	0	1	1	0	0	0	0	0	0	0
Shokutaku and others	1	1	2	1	1	2	1	1	1	2
Percentage of labor force participants										
Regular employees	44	33	23	26	27	26	27	32	27	23
Part-time and *arubaito*	32	47	55	55	52	57	45	42	52	49
Dispatched workers	1	2	2	0	0	0	0	1	1	0
Shokutaku and others	3	2	3	2	2	2	2	2	2	3
Percentage of nonagricultural wage and salaried workers										
Regular employees	55	40	28	31	33	31	36	42	33	30
Part-time and *arubaito*	40	57	68	65	64	67	61	55	64	64
Dispatched workers	2	2	2	0	0	0	0	1	1	0
Shokutaku and others	3	2	4	2	3	3	3	3	3	4

[a] Percentages do not add up to labor force participation rate because informal sector work is not included.

SOURCE: Labor Force Special Survey, February 2001.

age group. The labor force participation rate of married women without children drops by 20 to 30 percentage points and the share of nonstandard employment (part-time, dispatched, *shokutaku*, and others) increases to nearly half of those employed. Table 8.3 shows the work patterns for mothers by the age of their youngest child. The second and third rows show that the labor participation rate is about 10–17 percentage points lower for nuclear families than for extended families. Because nuclear families compose around 80 percent of families with children today, the middle and lower sections of the table show the work categories in detail for nuclear families.

The participation rate drops to 28 percent for the nuclear family when the youngest child is under age 3; it rises to 71 percent when the youngest child is 13–14 years old. The share of regular workers to total population stays relatively stable: 12 percent when the youngest child is age 0–3 and 18 percent when the youngest child is 15–17. On the other hand, the share of nonstandard employment to the total population increases as children age, from 8 percent of families whose youngest child is 0–3 to 38 percent when the youngest child is age 15–17.

Interestingly, as Table 8.2 reveals, the ratio of women who work in nonstandard employment generally increases with age for both single and married women. This indicates that the choice is not only a desire to coordinate household chores and work, but also an inability to find a regular job. Such an age effect is not evident for males, except for those over age 60. Nagase (1995) showed that the unwilling choice of nonstandard work increases when women are over age 35 and when men are over age 45 when controlling for education, area, and other factors.

In the 1990s, with the economy in a deep recession, the labor market scene changed, with demands for a flexible and less costly workforce becoming stronger. Nonstandard work expanded not only among housewives, but also among young males, and females and older males. The share of nonstandard employees in nonagricultural employment (excluding the informal sector) rose by 6 percent from 1990 to 2000, to 18 percent for males younger than 25 and not attending school, and to 28 percent for males over age 65, according to the Labor Force Special Survey. For females, the share increased by 7 percentage points from 1990 to 2000, to 49 percent for the age group 35–64, and by 12 percent to 23 percent for females younger than age 24 and

not attending school. Part-time work still composes the largest share of nonstandard employment, as shown in Table 8.1, but a new form of nonstandard employment is increasing, and the definition of "part-time" also includes full-time nonstandard workers, as will be discussed below.

SPECIFIC FEATURES OF JAPANESE "PART-TIME" WORKERS AND THEIR LOW WAGES

A very interesting feature of part-time employment is that a large body of workers is called "part-time" irrespective of work hours: their jobs have been often low-paying and short-term, with flexibility in working hours and fewer responsibilities. Ichino (1989) concluded that "part-time" workers are mostly married females and have longer average work weeks, while "short work week" workers included comparatively more males. Surprisingly, more than half of the workers classified as part-time worked more than 35 hours in 1989, according to the Labor Force Special Survey. The percentage is lower (26 percent) in 2000.[1]

This has much to do with Japanese employment practice that treats the regular workers, or *seishain*, and nonstandard workers differently. Court law has also supported such differential treatment. The *seishain* are hired as long-term contract workers, given greater job protection, and often have wages linked to tenure. Substantial biannual bonus payments are customary as is a higher severance payment upon retirement along with social security insurance coverage and other employee benefits. In return, the ready acceptance of overtime work and relocation was often required by employer and employee agreements. Sugeno, from the viewpoint of labor law, comments that such agreement can be rational under long-term labor contracts (Sugeno 1997, p. 101). On the other hand, part-time employees and other nonstandard employees are provided less employment stability and lower wages. There is as yet only one court that has ruled that the wage difference between workers of different work categories conducting the same work is against public benefit.[2] Kojima and Fujikawa (in this volume) explain the different treatment and the law.

Nagase (1997a,b) found that hourly wages of female part-time workers are as low as those of family workers and self-employed workers when education, tenure, and other factors are controlled for and when work selection correction was made. The wage gap between regular and part-time workers was found to be as large as 30 percent, even when education, tenure, work selection correction, and other factors were controlled for.

Despite the relatively higher demand for part-time than regular full-time workers evident in more job openings and the job-seeker ratio, the generally lower pecuniary compensation of part-time workers compared with regular workers never narrowed. Rather, the hourly wage level compared with that of the average females in full-time regular workers deteriorated. The average hourly wage gap between the two was around 10 percent in the early 1970s, but declined throughout the 1970s and leveled off in the 1980s. It showed a small reversal during the economic boom that began in 1986, but again started to decline after 1990. The Part-Time Labor Law was implemented in 1993 to enhance the working conditions of part-time workers. However, the average hourly wage gap between part-time employees and regular full-time employees is as large as 34 percent today. Among female part-time workers, only 35 percent were covered by Social Security Insurance in 1995, and many fewer were covered by corporate benefits.

POLICY AND INSTITUTIONAL CHANGES CONCERNING WOMEN AND LABOR

Policy changes that affected family and work were rather contradictory, in that on one hand they encouraged female labor, and on the other hand, increased protection to housewives.

The two main laws that encouraged female labor involvement were the Equal Employment Opportunity Law and the Child Care Leave Law. The former was implemented in 1986 to prohibit discrimination between sexes. The law was outstanding but introductory, since many clauses were written as "duty to make effort" for employers, and others that were mandatory lacked any penalty. Some clauses were strength-

ened in 1999. For example, the prohibition of discrimination between men and women in hiring, location, and promotion became mandatory.[3]

The Child Care Leave Law was implemented in 1992 to facilitate women's work after childbirth. It allowed leave from work until the child reached the age of one. Leave was originally nonpaid, but pecuniary compensation began with employment insurance in 1995, and the level improved in 2001 to 40 percent of the previous salary. The law applied to all enterprises (including businesses with fewer than 30 employees) in 1995. Leave, however, can exclude certain workers,[4] and nonstandard workers are often excluded (Nihon Rodo Kenkyu Kiko 2001). Most nonstandard workers, therefore, lack child care leave rights (Nagase 2000). The leave law was strengthened in 2001.

On the other hand, changes made in the Tax and Social Insurance Law increased benefits to low-earning or nonworking wives in the late 1980s and early 1990s. It, in effect, promoted secondary employment among women.

Securing women's pension rights was on the agenda of the Pension Reform Law of 1985. Before the reform, housewives of waged and salaried workers were not mandatory participants, but were supposed to be supported by their husband's public pension. The new law made social insurance mandatory for dependent spouses without any new premium payment.[5] The Ministry of Health and Welfare described the reform as that of transferring part of the breadwinner's income-related national occupational pension to his dependent spouse while maintaining the household total pension level. However, although the reform gave pension rights to nonearning and low-earning spouses, it did so by gradually thinning the pension benefit of the full-time working population without dependents. After the reform, the only addition that a wife could add to her pension by her own premium payment was the earnings-related second tier, since she was already given the first tier. On the other hand, the dependent spouse gained the full basic pension with no personal premium payment.

The definition of dependent spouse was quite generous: up to 1.3 million yen annually since the early 1990s.[6] Moreover, all other social security premium exemption rules for dependent spouses of waged and salaried workers were tied to the same limit, namely the health insurance premium and the long-term care insurance that was newly intro-

duced in 1999. Because the level of premium payment rose rapidly in the 1990s, the benefit obtained by remaining as a dependent spouse in effect enlarged. In fact, according to the Statistics Bureau's Basic Employment Survey of 1997, among married females, more than 70 percent of nonstandard employees with children were earning less than 1 million yen, below the minimum level for tax and social security payments.

In terms of tax, the Income Tax Special Deduction of Spouse was introduced in 1987. Before its introduction, the household tax increased once a wife's income exceeded a certain limit (then 0.9 million yen) because the main income earner lost the full value of the spouse's deduction on his income tax. The addition of the Special Tax Deduction of Spouse was to lessen this large increase, not by reducing the low-earning wives' tax benefits, but by adding income steps on it. Some observers noted that this change was implemented to ease the heated objection of housewives to the introduction of the Consumption Tax.

Labor practices also encourage married women to stay home, or at least remain low-income earners. Many firms pay "spouse's addition" to the regular salary. According to the General Survey on Wage and Working Hours System of 1997, by the Ministry of Labor, and conducted among enterprises with 30 and more full-time regular employees, 77 percent of the firms provided spouse allowances that averaged 10,500 yen a month. However, the payment is often linked to whether the wife is dependent.[7]

MARRIAGE, CHILDBIRTH, AND LABOR SUPPLY

Cohort Difference

Using the microdata from the Eleventh Japanese National Fertility Survey—Married Women (hereafter referred to as *Married Women*), I examine how having children affects the work choices of females. The data were collected by the National Institute of Population and Social Security Research (NIPSSR) in 1997 for married women under age 50, or born after 1948, and comprise a national sample of 7,370, when

missing samples are excluded.   The data include retrospective ques-
tions on work status before and after marriage, date of first child's
birth, and mother's present work status.[8]

The upper half of Table 8.4 shows the older cohort (age 35 to 49
when surveyed), and the lower half shows the younger cohort, who
were under age 35. A majority of married women in both cohorts (84
percent) had regular full-time employment before marriage. The older
cohort had a slightly higher percentage of self-employment and no
work, while the younger cohort had a slightly higher percentage of
nonstandard work before marriage, but the difference is small.

The transition at marriage in two age groups is shown in the second
column. A higher proportion of the younger generation continues full-
time regular work after marriage; 46 percent versus 41 percent of the
older cohort. Being a housewife, however, was still a popular choice:
as many as 40 percent of those under age 35 left the labor force to

Table 8.4 Change in Labor Force Participation and Type of Work with Marriage and Childbirth (%)

	Before marriage	After marriage[a]	When first child was age 1[a]				
				Education (years)			
			Total	9	12	14	16
Born 1948–1962							
Regular employment	84	41	17	15	14	22	30
Nonstandard employment	11	10	3	4	3	2	4
Self-employed	2	5	5	7	6	6	2
Home piece rate work	–	1	2	5	2	1	–
Out of labor force	3	42	67	61	71	66	62
Born 1963–							
Regular employment	84	46	13	3	11	15	25
Nonstandard employment	7	12	4	3	5	3	2
Self-employed	4	2	3	9	3	3	3
Home piece rate work	–	0	1	3	1	1	1
Out of labor force	5	39	70	77	74	73	65

[a] For those who are regular employees before marriage.   Nonstandard employment includes part-time and *arubaito*.
SOURCE: Nagase (1999).

become housewives, which is much higher relative to U.S. women, at 1.4 percent (Cassirer, Table 9.11, in this volume).[9]

Despite the Child Care Leave Law, work continuation dropped slightly for the younger generation after the birth of their first child (third column, Table 8.4). About 70 percent of women were found to be out of the labor force when their first child was one.[10] More than half of those who remained in regular work at marriage quit work at childbirth, which again is exceptionally high compared with 6 percent in the United States (Cassirer, in this volume).

The next four columns show the difference in work status by educational attainment when the first child is age one. High school graduates compose the largest share of females, 49 percent for the younger and 53 percent for the older age group. Only 14 percent of high school graduates in the older cohort held a full-time regular job after their first child was born, and the percentage was 11 for the younger age group. Although more university and college graduates continued work, the percentage who held regular jobs declined in the younger age group. Overall, 62 percent of university graduates were out of the labor force in the older age group, and 65 percent in the younger age group.[11]

Because the *Married Women* does not include those who would marry in the future, young women who would marry and would have births in their 30s are excluded from the data. Osawa and Suzuki (2000) pointed out that there is an emergence of educated women who postpone childbirth until the 30s and continue work after childbirth. In these data, too, if the sample is restricted to more educated and those who had their first child in later years,[12] a small sign of increased participation after childbirth was seen for the younger generation. It should also be noted that, although increasing, women who have their first child in their 30s are a minority.[13] Therefore, it is still uncertain whether postponed marriage will result in continued labor participation after childbirth in the future or whether more women in the younger cohort will remain childless. The likelihood of the latter so far seems to be higher. The birth projection of NIPSSR in 2002 predicted that 31 percent of women born in the 1985 cohort would remain childless and 17 percent would not marry.

Since a small decline in labor force participation for the younger cohort is rather surprising, I checked two sets of larger cross-sectional data, the Basic Employment Survey of 1987 and 1997, to confirm the

findings on the women's work pattern. By the cross-sectional comparison, the labor participation rates of mothers of young children are low and show almost no change.[14]

A much larger and significant change in behavior is the delay in marriage among both sexes in Japan. According to the census, among women in their late 20s, only one in four were not married in 1980. In 2000, the ratio was over one in two. The number of women who are not married in their early 30s is also on the rise. The percentage was 10 percent for those born between 1951 and 1955, 14 percent for those born between 1956 and 1960, 20 percent for those born between 1961 and 1965, and 27 percent for those born between 1966 and 1970. This means that a higher percentage of younger women continue to work while postponing marriage. However, when they do get married, about 40 percent still become full-time housewives.

Child Care

The *Married Women* survey also included a question on the main caregivers of the first child in his or her first year.[15] The data show that before the Child Care Leave Law was enacted, only 1.9 percent of mothers used child care leave. The use of such leave increased after the implementation of the law, yet fewer than 10 percent of the total births used this leave even after 1996. The use of child care leave is low because a substantial number of women were already out of the labor force before pregnancy, and even for those who worked during pregnancy, about 60 percent chose to quit work right before childbirth.

It is, however, also true that child care for regularly employed workers changed substantially in recent years. The use of child care leave increased from 5 percent to 39 percent when comparing children born between 1966 and 1986 and those born between 1992 and 1997. The use of government-sponsored day care also increased from 7 to 18 percent, while the role of cohabiting grandparents declined from 36 to 22 percent and the role of noncohabiting grandparents increased. Grandmothers who were the main child support during work before are now increasingly replaced by more formal care and formal leave. However, one should again recall that only 20 to 30 percent of women, a minority, continue work when the child reaches age one.

Choice of Retirement, Full-Time Work, and Part-Time Work at Childbirth

In this section, work choice after first childbirth will be analyzed by multinomial logit analysis for those women who had full-time, regular employment prior to giving birth. Three different statuses are compared when the mother's child is age one: 1) continuation of full-time work with a regular contract, 2) change to part-time or other nonstandard form of employment, including informal employment, and 3) retirement from full-time regular work.

For explanatory variables, education, occupation, and a firm-size dummy before childbirth were used to account for the wage level of the women. In Japan, in general, larger firms on average pay higher wages.[16] Family characteristics, such as the husband's income and having a grandmother in the family, were included in the regression as variables for the reservation wage. Higher wages are expected to increase participation, while a higher reservation wage is expected to increase the probability of leaving the labor force. One's attitudes toward family and marriage, which were derived by factor analyses, were added, as well as one's mother's work history to determine the effect of attitude and values (see Appendix A, Table 8.A1). The choice to work in regular employment is expected to be a longer-term choice, while participation in a nonstandard job is a short-term choice owing to the current need for income.

Table 8.5 shows that highly educated mothers are more likely to continue full-time regular work instead of leaving the labor force (the base category in the multinomial logit models). Having a full-time position at large firms before childbirth did not increase the probability of mothers continuing to work. However, when mothers do continue to work, they are less likely to change their jobs to nonstandard work if they had a regular position at larger firms. In terms of occupation, women in professional, technical, and managerial occupations, as well as blue-collar workers, are more likely to continue work, while clerical workers are most likely to leave the labor force at childbirth. Workers in sales and service are likely to work as nonstandard workers. Public servants are most likely to continue a regular full-time job, possibly because the child care leave can more easily be taken and also because the male-female wage gap is often small in this sector.

Table 8.5 Multinomial Logit Analysis of Employment Status of Women (to age 49) When First Child is Age 1

	Full-time		Nonstandard	
	Coefficient	t-value	Coefficient	t-value
Educational attainment (base = junior high school)				
High school	0.371	1.35	−0.151	0.46
College	0.677**	2.27	−0.402	1.06
University	1.104***	3.25	−0.575	1.12
Workplace characteristics (base = firm size below 30)				
Firm size 30–99	−0.002	0.01	0.097	0.39
Firm size 100–299	−0.027	0.15	−0.641**	2.26
Firm size 300–999	0.367*	1.92	−0.194	0.66
Firm size 1000+	0.099	0.57	−0.470*	1.79
Work in public sector	1.792***	8.41	−0.069	0.15
Occupation (base = clerical and others)				
Professional and technical	0.536***	3.82	0.761***	3.28
Administrative	1.564**	2.31	−30.125	0.00
Sales and service	−0.152	0.86	0.460*	1.90
Blue-collar work	0.823***	4.06	1.102***	3.84
Family characteristics				
Husband self-employed	−0.064	0.38	0.678***	3.12
Extended family	0.996***	8.56	0.413**	2.27
Income of husband	−0.002***	3.10	−0.001	1.21
Years after marriage	−0.003	0.16	−0.010	0.36
Child born after the enactment of Child Care Leave Law	−0.185	1.28	0.035	0.16
One's mother's work history (base = worked when children were small)				
At home when children were small	−0.542***	4.02	−0.317	1.53
Never worked	−0.285**	2.08	−0.443*	1.93
Attitude toward family and marriage				
Traditional	0.016***	2.47	0.001	0.05
Individualistic	0.031***	4.74	−0.001	0.13
Openness in sex	−0.003	0.46	0.003	0.39

(continued)

Table 8.5 (continued)

	Full-time		Nonstandard	
	Coefficient	t-value	Coefficient	t-value
Constant	–4.791***	3.63	–1.286	0.64
Sample size	1959			
Psuedo adjusted R^2	0.123			
Log likelihood	–1564.52			

NOTE: The base category is "out of labor force." Nonstandard work includes part-time, *arubaito*, and family- and self-employment. The analysis was conducted only with those who had full-time regular work prior to childbirth.
*$p = 0.1$; **$p = 0.05$; ***$p = 0.01$.
SOURCE: Nagase (1999).

The general family environment and taste also have a large explanatory power. Mothers with kin help from the extended family are more likely to continue full-time regular employment. On the other hand, higher husband income decreases the probability of continuing full-time regular work.[17] Mothers are more likely to follow the way they themselves were raised. They are more likely to leave the labor force when their own mother stayed at home during their childhood. Traditional as well as individualistic attitudes toward marriage encourage continuation of full-time regular work.[18]

Interestingly, the enactment of the Child Care Leave Law did not have a significant effect on the work continuation choice. The sign was even negative. This could be owing to the prolonged recession after the enactment of the law. It could also be that the commitment requirement of full-time regular work strengthened further during the recession. The shortage of government-sponsored child care facilities also remained high, especially in the cities. Because I included family workers in the category of nonstandard work, the choice of nonstandard work increases when the husband is self-employed.

The multinomial logit analysis shows (in contrast to the United States; Cassirer, in this volume) that nonstandard work in Japan increases only slightly after childbirth, except for self-employed households, some manual workers, and professionals. This may be due to a large drop in wages for part-time employment, which will be discussed later.

Reentry to the Labor Market

When and how do the 70 percent of women who were out of the labor force return to the labor market? Because the data lack the direct timing of the return to labor market, I will show the cross-sectional relationship of the youngest child's age and present work status.

Table 8.6 shows the labor participation and work category of mothers by the age of their youngest child. It only includes those mothers who were out of the labor force when their first child was age one. The reentry to work differs by educational attainment. Returning to work is, in contrast to other countries, less common when mothers have higher education. The percentage of women out of the labor force declines as children age, but it is 44 percent for university graduates and 29 percent for high school graduates when the youngest child is older than age 12. The "over 12" category includes mostly women in their 40s. The most popular way to reenter the labor market was through work in nonstandard employment, that is, part-time and *arubaito*. Self-employment was also comparatively higher among the lower-educated group and also the university graduates.[19]

On the other hand, Table 8.7 shows the more educated had the higher and stronger attachment to regular full-time work when the first child was at age one. Approximately 60 percent remain in regular work, while the percentage is less than 40 percent for high school graduates. The less-educated are more likely to quit or change work, perhaps when they have a second child or when the first child grows up.

The continuation of work at marriage has advanced for the younger generation, but the trend has not extended to continuing work upon childbirth. Delaying marriage became popular, rather than a new work style that balances family and work. Unlike in many other countries, fewer women in Japan use part-time work as a bridge to continue work when they have small children. Part-time work is often selected by those who reenter employment, especially among the lower-educated, and the ratio of regular full-time employment does not increase much even when one's smallest child grows older. Although only a minority of mothers continue to work right after the birth of the first child, when they do, it is the more educated who are likely to be attached to this regular employment opportunity. Another feature is that the highly

Table 8.6 Work Pattern by the Age of Youngest Child and by Mother's Educational Attainment (for those who were out of labor force when the first child was age one)

Age of youngest child	Out of labor force (%)				Nonstandard employment (%)				Standard employment (%)				Family work, self-employment (%)			
	9 yrs	12 yrs	14 yrs	16 yrs	9 yrs	12 yrs	14 yrs	16 yrs	9 yrs	12 yrs	14 yrs	16 yrs	9 yrs	12 yrs	14 yrs	16 yrs
< 3 years of age	80	88	89	88	7	6	4	6	2	1	1	3	10	4	5	4
3–6 years of age	77	61	69	68	15	24	19	16	0	5	3	9	8	10	9	7
6– 9 years of age	28	43	51	63	50	40	30	15	6	4	5	4	17	12	14	17
9–12 years of age	38	40	39	47	43	42	39	28	0	8	13	19	19	10	10	7
12+	27	29	35	44	37	45	41	33	19	15	14	7	18	11	11	16
Total	40	50	60	65	32	32	24	18	12	8	7	7	16	10	9	10

SOURCE: Nagase (2000).

Table 8.7 Work Pattern by the Age of Youngest Child and by Educational Attainment (for those who were in full-time regular work when the first child was age one)

Age of youngest child	Standard employment (%)			
	9 yrs	12 yrs	14 yrs	16 yrs
< 3 years of age	8	37	43	63
3–6 years of age	14	36	46	67
6–9 years of age	9	31	37	43
9–12 years of age	36	35	52	56
12+	26	34	45	62
Total	23	35	44	59

SOURCE: Nagase (2000).

educated are likely not to return to work once they leave the labor force. I now turn to why this is the case.

WAGE DIFFERENCE BETWEEN WORK CATEGORIES AND INCOME ADJUSTMENT FOR TAX PURPOSES

One answer to this question is the large wage gap and the less favorable working conditions of nonstandard workers, and the difficulty of returning to regular, full-time, white-collar jobs with seniority payment.

In this section, using the *Married Women*, I will first show that the continuation of work in part-time status does not increase future wages. The Survey on Diversified Workers at the Workplace will be used to show that the income adjustments of housewives have a very large impact on the low wages of part-time workers, and that the acceptance of low wages and satisfaction toward work in nonstandard employment is rather high for married females and low for nonmarried females.

The *Married Women* is not the best data set for studying income, as it only has six annual income categories of present income and no data on work hours.[20] However, on examining the income pattern, it does exhibit the characteristics of different work categories. For women with children working as part-time or *arubaito*, as many as 79 percent

earn below the level for income tax levies. The comparable figure was 6 percent for regular work and 49 percent for family workers and the self-employed. The lowest two income categories covered 97 percent of nonstandard workers, while the comparable figure was 21 percent for regular workers and 67 percent for informal work participants.

Table 8.8 shows the regression with the logarithm of present annual income as the dependent variable for the sample of women with children who had regular work positions before marriage.[21] The work category was the most significant explanatory variable for the difference in annual income. The annual income of wives with children was reduced by 55 percent if they were in nonstandard work and was increased by 74 percent if they were in regular work, compared with the informal sector work and while not counting for the work hour differences. Continuation of regular work after marriage significantly increased present income by 8 percent, while a change to nonstandard work did not. Continuation of regular work at the birth of the first child significantly increased present income by 27 percent, while the continuation as a nonstandard worker did not. Interestingly, the effect of childbirth after 1996 or having children under age 2, as well as the effect of childbirth after 1991 or children under age 6, are positive and significant on the annual income. Because these are samples of women who have children, this may be interpreted as "recent births." The Equal Employment Opportunity Law and the Child Care Leave Law may have helped to increase the continued participation of potentially higher-income mothers, though the percentage to total of such females is still very small. The selection equation shows that labor force participation declined when children under 6 are at home and when the husband's income was high, and increased when kin help was available and when the wives had family work opportunities, all of which suggests the effect through the reservation wage. Labor participation increased with educational attainment when other factors are controlled for. When the women's mother had been a full-time housewife, their labor participation significantly declined, showing the effect of inheritance of "family values." Overall, the regression showed that the continuation of "regular employment" increased future income while nonstandard work employment *never did*.

How much can the difference in annual income be attributed to work hour differences? The annual income difference attributable to

Table 8.8 Income Regression for Mothers with Children: The Effect of Work Continuation on Present Income

Explanatory variables	Coefficient	*t*-value
Wage regression		
Age	0.021***	8.25
Education (junior high school = base)		
High school graduate	0.021	0.48
College graduate	0.066	1.37
University graduate	0.162***	2.71
Occupation (blue-collar workers = base)		
Professional and technical workers	0.231***	6.25
Managers and officials	0.416***	4.08
Clerical and related workers	0.203***	6.19
Sales and service workers	0.057*	1.86
Work status (informal and other nonstandard work = base)		
Full-time and regularly employed	0.739***	19.92
Part-time or *arubaito* work	–0.548***	17.42
Work choice right after marriage (full-time housewife = base)		
Full-time and regularly employed	0.082***	2.97
Part-time or *arubaito* work	0.013	0.34
Work choice right after childbirth (full-time housewife = base)		
Full-time and regularly employed	0.276***	8.10
Part-time or *arubaito* work	0.027	0.49
Number of children	–0.020	1.30
First child birth year (birth before 1991 = base)		
Births after 1996	0.138***	2.33
Births after 1991	0.132***	3.04
λ	–0.299	0.40
Constants	3.872***	31.23
Probability of labor participation equation		
Education (junior high school = base)		
High school graduate	0.070***	0.89
College graduate	0.177***	2.10
University graduate	0.337***	3.27

Table 8.8 (continued)

Explanatory variables	Coefficient	t-value
Husband self-employed	0.403***	7.18
Live within extended family at marriage	0.370***	8.72
Husband's income (predicted)	–0.002***	6.97
First child birth year (birth before 1991 = base)		
Births after 1996	–0.438***	6.39
Births after 1991	–0.750***	17.05
One's mother's career (worked throughout her life = base)		
Interrupted work when children are small	–0.065	1.41
Full-time housewife throughout her life	–0.210***	4.77
Constant	1.112***	8.31
Log likelihood	–5469.779	
Sample size noncensored	2798	
Total for those who had regular work before marriage	5043	

*p = 0.1; **p = 0.05; ***p = 0.01.
SOURCE: Nagase (2000); Nagase (2001).

work hours can be estimated at around 30 to 40 percent,[22] which explains only a part of the income difference shown in Table 8.8 by work category. Wage regressions using different data sets consistently showed that the part-time wage is very low, distinctly lower than that of regular employment even when hours, education, tenure, and other factors are controlled for, and that the return to education and experience is low (see, for example, Houseman and Osawa, in this volume).

The low wage rate of part-time workers was often attributed to the intermittent work experience, the low skill level, the lower educational level, or the lack of commitment to work. Nitta (1993a,b), for example, argued that for many part-time workers, their wage was only additional income to their household and they had little ambition to increase the wage. Sato (1998), moreover, pointed out that more part-time workers replied that they are contented with their work compared with full-time regular workers, even though their wage level is low; he also pointed out that their preferences are distinctly different from those of full-time regular workers. Higuchi (1981) treated work choice

as a high-wage, long-work-hour set and a low-wage, short-work-hour set, implicitly treating the low wage of part-time workers as a compensating wage differential for work hours. Osawa (1993, 1994) and Asakura (2001), on the other hand, argued that the wage gap is the direct result of the Japanese employment system, which discriminates among workers by working status and not by hours. Nagase (1994), using microdata, estimated the effect of "short-hours" and "part-time hiring status" in the wage regression of married females. The result showed a strong negative effect of the latter, but the effect of the former was small. She concluded that the wage gap cannot be fully attributed to a compensating differential to short hours worked but to an entry barrier to regular status work, especially for the long-work-week "part-time hiring status" workers. Nagase (1997b) further found the widening and the large wage gap to be self-enforcing because of the social security and tax system. Takeishi (2001), on the other hand, based on interviews with 50 companies that had high nonstandard worker:employee ratios, showed that in many firms, part-time employees are increasingly substituted for work that was formerly done by full-time regular employees. She concluded that more part-time workers are taking on greater responsibilities. Her interviews, however, also showed that often pecuniary compensation does not parallel the increase in responsibilities.

For the remainder of the discussion, I use the Survey on Diversified Workers at the Workplace, conducted by the Japan Institute of Labor in 1999.[23] This survey was conducted with nonstandard workers to determine how the nonstandard workers viewed their wages in relation to full-time regular workers at the same workplace in relation to their work-hour flexibility, their responsibility and level of work, and so forth. The survey also asked whether the nonstandard workers believe the wage difference between full-time regular workers at the same workplace is reasonable.

As to the wage rate difference, 72 percent of nonstandard workers replied that their hourly wage rate was lower than those of full-time regular employees. Among them, 43 percent accepted the difference as understandable and 39 percent replied it was unreasonable. Responsibility and work content were important elements for acceptability. Thirty-three percent of those who replied "understandable" said that the difference was reasonable because of differences in responsibility,

and 24 percent because of the differences in work content. On the other hand, 53 percent of those who replied "unreasonable" thought that the content and responsibility of the work were the same. The dissent rose with nonstandard employee experience. Among nonstandard workers who viewed their work level as equal to that of the entry level of *seishain*, the percentage of dissent was only 17 percent. Among those who viewed their work as equal to *seishain* with five or more years of tenure, 46 percent thought the wage difference was unreasonable. The percentage of dissent was near 50 percent among females who were in a nonstandard job because they could not find regular full-time work, but the percentage was lower, 27 percent, for males with similar reason. On the other hand, the percentage of those who replied "understandable" was the highest, at 40 percent, among those who targeted their income below a certain level. Among married females, 51 percent voluntarily chose nonstandard employment and 30 percent involuntarily ended up as such due to a lack of full-time work. The percentage was just the opposite for unmarried females: 25 percent voluntary and 51 percent involuntary. The involuntary percentage for males was about the same as that for married females, 30 percent, which highlights a significant difference in dissent by sex and marital status.

On the whole, dissent about wages was highest for unmarried and divorced females, followed by married females who were unable to find a regular job. In contrast, dissent was, on average, low for males and the lowest for the married females who were controlling their earnings below the tax levy limit.

Today, part-time work is very much linked to non–tax-levied income levels, especially among married females. Because many wives adjust their work hours to fall below the income threshold, the annual income distribution is extraordinarily skewed for part-time workers. These data show that as many as 39 percent of all nonstandard working married females were found to be on the critical target, ready to decrease their work hours once they met the increase in wage level. Twenty-nine percent of all married females are exactly in the critical income bracket for tax purposes (the bracket from 0.9 to 1.03 million yen). Those who paid the tax but avoided the social security payment (who were in the income bracket of 1.03 million to 1.3 million) composed another 10 percent. This ratio corresponded well with

their reply on the questionnaire, "Are you adjusting your work hours or work days for the consideration of tax and other income limits, so that annual income does not exceed a certain limit?" When the sample is confined to married women working shorter hours compared with regular workers at the workplace, 52 percent replied that they were "income targeting."[24]   A study group at the Cabinet Office estimated that if a wife increased her income from 1.03 to 1.40 million yen, total household income would increase by a mere 0.02 million yen due to the rise in tax by 0.04, social security by 0.14, and a spouse allowance reduction of 0.18 million yen (Study Group at Cabinet Office 2001). The estimated 0.38 million yen fixed cost equals 428 labor hours when measured by the average hourly wage of female part-time workers of 877 yen. This institutional hedge is strongly affecting the part-time wage and the labor supply of part-time workers.

Married females are still a large source of supply to the nonstandard labor market.[25]   The effect of wage increases on labor supply in general is not determined in economic theory, for it is the combined effect of the negative income effect and the positive substitution effect. However, if the "income-targeting" behavior is very strong, the wage increase is only met by work hour decreases in the same ratio for those who are at the threshold. When such behavior is predicted, firms would be unwilling to increase wages unless the employees agree beforehand to work over the 1.03 million yen ceiling. On the other hand, married females would not gain by working more hours unless the firm promises to raise the hourly wage so as to cover the fixed expenses in tax and social security to overcome the target.

Because the data set has only data for nonstandard workers, I conducted a wage regression of nonstandard workers while dividing the sample by those who target their income below a certain ceiling and those who do not (see Table 8.9).[26] The intention to adjust one's working hours for the purpose of income targeting was used to make a self-selection correction in the wage regression. The wage regression shows that the return on education is much lower for those who are ready to income target. Higher responsibility in the work ladder is also reflected more fully for those who do not adjust their work hours. Interestingly, lambda is positive, showing that the errors in wage and errors in those who target income below the ceiling are positively related. This can be interpreted as meaning that those women who tar-

Table 8.9 Wage Regression of Nonstandard Workers: Those Adjusting Work Hours below Tax or Social Insurance Fee Exemption Ceiling and Those Who Do Not Intend to Target Specific Income

	Target income ceiling		No work hour adjustment	
	Coefficient	t-value	Coefficient	t-value
	Wage regression			
Educational attainment (base = 9 years)				
12 years	0.059***	2.50	0.043**	1.93
14 years	0.102***	4.05	0.135***	4.62
16 years	0.120***	3.60	0.257***	5.94
Tenure	0.008***	3.00	−0.001	0.22
Tenure^2	0.000***	2.58	0.000*	1.86
All work experience years	0.000	0.27	0.001	0.81
Level of job as compared to full-time regular workers (base = 1–2 years tenure equivalent)				
Equivalent to 3–4 year tenure full-timers	−0.010	0.94	0.063***	3.76
Equivalent to more than 5-year tenure full-timers	0.001	0.04	0.082***	3.93
Group leaders	0.013	0.46	0.084***	2.98
More than group leaders	−0.091***	4.42	0.147***	3.09
No answer (cannot be compared)	−0.013	0.93	0.047***	2.15
Job similarity with full-time regular workers (base = nothing in common)				
Do much same work as full-timers	0.010	0.43	−0.063***	2.45
Have some work similar as full-timers	−0.003	0.12	−0.101***	3.93
Not much similarity	0.004	0.17	−0.082***	2.87
Occupation				
Clerical	0.032***	2.79	0.035*	1.89
Professional	0.106***	2.72	0.151***	4.22
Sales	0.015	0.89	0.008	0.29
Service	0.019	1.03	0.029	1.17

	Target income ceiling		No work hour adjustment	
	Coefficient	*t*-value	Coefficient	*t*-value
Blue-collar work	−0.016	1.16	−0.052***	2.98
Think the low wage unreasonable	−0.019*	1.78	−0.050***	3.47
Constant	6.409***	103.12	6.752***	208.82
	Selection equation			
Single, not married	−0.522***	5.79	0.625***	10.15
Could not find regular full-time job	−0.580***	6.24	0.821***	15.91
Educational attainment (base = 9 years)				
12 years	0.400***	4.96	−0.293***	3.76
14 years	0.360***	3.79	−0.230***	2.50
16 years	0.400***	3.14	−0.256**	2.03
No children in household	−0.159***	2.57	0.177***	2.87
Child < 6	−0.063	0.66	0.108	0.98
Child < 10	−0.020	0.28	0.018	0.19
Child < 15	0.210***	3.43	−0.256***	3.61
Constant	−0.553***	6.10	0.228***	3.03
$1/2 \ln(1+\rho_i)/(1-\rho_i)$	1.240***	4.84	−0.281***	6.74
$\ln \sigma_i$	−1.600***	10.88	−1.231***	25.63
ρ_i	0.845		−0.274	
σ_i	0.202		0.292	
λ_i	0.171		−0.080	
Noncensored sample	1075		2214	
Censored sample	2464		1179	
All samples	3539		3393	
Log likelihood	−1355.454		−2274.272	

*$p = 0.10$; **$p = 0.05$; ***$p = 0.01$.
SOURCE: Nagase (2002).

get their work hours to make the most of the present tax and social security exemption system are those who may potentially have higher quality, controlling for education and for the type of work that they do. This is probably because nonstandard workers who work over the ceiling consist of those who were unable to find a full-time regular job. If

they did find a better job in regular employment, they would not be included in the data.

The self-selection regression shows that the probability that married females adjust work hours is high compared with singles, especially when they have children older than age 10 but younger than 15 compared with those who have children over age 15. Women without children, including those whose children have left home, are more likely to exceed the non-tax-levied bracket. The lowest-educated group is more likely not to income target their work hours, possibly because their spouse is in a lower income bracket, or because they cannot make the transition from nonstandard work to regular full-time work, even though they want to work longer hours.

CONCLUSION

Half of women workers in Japan currently work in nonstandard work arrangements, and the ratio has risen rapidly in the past decade. According to the *Married Women*, more than 80 percent of women had regular full-time positions before marriage, but among them, 40 percent left the labor force at marriage and more left at first childbirth, leaving only 20 to 30 percent in the labor force one year after first childbirth. Among those who are out of the labor force, the less-educated are likely to return as nonstandard employees. The labor force participation rate of mothers, therefore, drops at first childbirth, but eventually rises to more than 70 percent when their children are over age 13, with 60 percent of them working as nonstandard employees. The higher-educated are more likely to continue to work in regular full-time employment. Yet, the majority of university graduates also leave the labor force at childbirth and are less likely to return relative to the lower-educated category. Perhaps the largest difference between the countries compared in this volume is that few women in Japan use part-time employment as a bridge to continue employment through child-rearing. The majority interrupt work for some years, but if they do work, those with higher education and those employed in larger firms prefer to continue to work in regular full-time positions rather than in part-time work. This is possibly because the wage level is very

low in part-time work, while the wage return on work continuation is much higher for full-time regular employment, especially for those with higher education and those who work at larger firms. The decision has much to do with Japanese long-term employment practices with seniority payment, which excludes nonstandard employees from the same wage table. The percentage of those who continue work has not changed much even for younger females, though younger generations increasingly postpone marriage and childbirth.

The wage rate of part-time workers is low, and the gap has not narrowed in recent years despite the relatively higher demand for nonstandard workers and despite findings that part-time workers are increasingly taking on greater responsibilities. Why is this, and is the work choice as a nonstandard employee voluntary? Many surveys have shown a higher percentage of part-time workers are content with work compared with regular full-time workers. This is rather surprising, though the level of expectation toward work may be lower for part-time workers. In terms of wages, however, the Survey on the Diversified Workers at Workplace showed that about 40 percent of nonstandard workers who replied that they are being paid less than full-time regular workers thought the gap was unreasonable. Interestingly, more married women, many of whom adjusted their work hours below the tax-free level, replied that they thought the gap was reasonable. On the other hand, more unmarried women (either never married or divorced) thought the gap was unreasonable. The actual wage level of the latter was not lower, but more thought the wage level was unreasonable. The percentage of workers who thought the gap was unreasonable rose with work level and was higher for women than for men. Analysis showed that the tax and social security fee exemption criteria caps the preferred annual income for housewives, and this discouraged work hours of potentially more able workers. The income-targeting behavior creates a negative relationship between wages and work hours, and this must have had a negative impact on the average wages of part-time workers.

The Equal Employment Opportunity Law implemented in 1986 and amended in 1999, as well as the Child Care Leave Law of 1992, aimed to better the working conditions of women in standard work. The change in society, however, has not increased the continuation of work among mothers. Benefits to nonearning wives, on the other hand,

have strengthened the effect on work hours among part-time workers in the past decade. The benefit has caused many married females to self-restrain their income below the ceiling, which in turn restricted their wage level. Although surveys show that many part-time workers are content with their low-wage job, an important change of the labor market in the 1990s was that more unmarried and divorced females increased their presence in this nonstandard labor market. Before the 1990s, the nonstandard work market was primarily for middle-aged housewives, but it is now being transformed rapidly by newcomers. More women may be included as involuntary nonstandard workers in this new group.

Notes

1. Three factors may have contributed to the decrease in average work hours. Previously, long work week workers hired as "part-time" were most popular in manufacturing, but such work opportunities decreased due to the decline in the manufacturing sector and the increase in sales and clerical work. The second factor was avoidance of tax and social security payments. As the general wage level increased while the tax-free limit remained stable, more part-time workers and businesses shortened the hours of work to avoid tax and insurance premiums (see next section). The third factor was the general decline in work hours of regular workers and the subsequent decline in average work hours of part-time workers beginning in 1987 following the Labor Standard Law that reduced the work week to 40 hours (from 48); the phase-in period ended in 1999. More firms today, however, are starting to hire nonstandard employees again for long hours to substitute for regular workers.

2. Maruko Keihoki Sosho at District Court in 1996 was the first court that ruled that, even though an employer has degrees of freedom in wage setting among different work contract categories, wage differences of more than 80 percent cannot be accepted. At this firm, only males and nonmarried females were hired as *seishain* and all the married women were hired as part-time, though their designated work hours were only 15 minutes shorter than *seishain* and their work days were the same as *seishain*. The work contract was only two months, but because of recontracting, part-time workers had tenures from 4 to 25 years. They were doing the same work as female *seishain* in the factory line, though over time fewer female *seishain* were doing the same work and were replaced by part-time workers. Although *seishain* were given a seniority factor in their wages, part-time workers had only three steps in their wages. The wage gap was calculated as 34 percent for a woman working for 25 years. One woman reported that her wages were lower than newly hired female *seishain* in their first year. The court ruled that the seniority payment is basic practice in Japan, and so the same work/same payment

principle cannot be said to exist as a general norm in Japan. That said, however, people in general should be paid equally for the same work in principle, and wage differences of more than 80 percent cannot be accepted. Sugeno and Suwa (1998), skeptical of the court decision, commented that because of the different labor practice, especially because *seishain* are paid by age, tenure, educational level, work attitude, performance, number of dependents, and other factors, the equal job/equal payment principle between *seishain* and part-time workers cannot be supported.

3. At the same time, the Labor Standard Law's protection of female workers was reconstructed as protection to mothers. In 1997, general protections for female workers that capped overtime work and banned work after midnight were removed and protections became equal between the sexes.

4. Daily laborers and workers with definite duration of contract are excluded from leave eligibility. Also, the following workers can be excluded under employer-employee contract: workers with less than one year of tenure, worker whose spouse can take care of the child, workers whose contract ends within one year, workers with less than two days work days. Nonstandard workers, though in actuality having more than one year tenure, often have a defined duration contract that ends within a year.

5. The change was made such that if the working spouse paid his own portion of income-related pension fee, the nonworking spouse was given the full record of full premium payment for the first tier of the public pension. Wives working as "part-time" were included as "nonworking" if their income was below a defined limit. A couple with the same income were to be given the same premium payment and the same pension level regardless of whether the couple was a double income or a single income couple in principle.

6. It was 0.9 million yen, the same as the tax-free bracket in 1985; it was raised to 1 million yen in 1987, to 1.1 in 1989, to 1.2 in 1992, to 1.3 in 1993, and has remained at 1.3 million yen since.

7. According to this survey, 50 percent linked the eligibility of the spouse allowance to the spouse's income level, and 76 percent of those firms linked eligibility limits to annual income of 1.03 million yen. This is the amount where the tax levy to the wage and salaried worker begins and where one's spouse loses the spouse deduction if the worker is married.

8. Births out of wedlock are exceptionally low in Japan (fewer than 2 percent in 2000). Although the divorce rate is rising, only 1.4 percent of all households were headed by single mothers (0.61 million households) in 1999, according to the Ministry of Health and Welfare (*Kokumin Seikatu Kiso Chosa*). Therefore, the *Married Women* is representative of the labor pattern of Japanese mothers. Because panel data available in Japan concerning such issues are limited, these data may be the best national sample covering different cohorts on such questions.

9. It should be stressed, however, that the U.S. sample that Cassirer used is not directly comparable to the *Married Women* data. The U.S. data is panel data that was gathered in 1994, 1996, and 1998, and the women who were surveyed were

aged 29–39. Cassirer shows the labor supply behavior of women whose marriage and childbirthing occurred primarily in their 30s. It is probable that those women have higher attachment to work than women who married or bore children in their 20s. On the other hand, *Married Women* data is retrospective data, and it shows the labor supply behavior of women who married mostly in their 20s.

10. Such a general tendency was found when extended families were treated separately, and when cities and rural areas were treated differently.

11. To control for age of marriage and age of childbirth between cohorts, I restricted the marriage age and the age of the first child to those between age 25 and 30 and compared the age groups 30–34 and 35–49. However, despite such control, the overall trend was about the same, especially for the more educated group. For university and college graduates, more women continued work in the older generation; for the younger age group, 73 percent became housewives and 19 percent stayed in regular work, while for the older group, 65 percent became housewives and 24 percent continued regular work.

12. For example, 14 or more years of education and the birth of the first child at age 30 to 34. Among women aged 35–40, 24 percent continued regular work as opposed to 22 percent in the 40–49 age group. The percentage of those out of the labor force was also slightly less.

13. The peak age for having a first child was age 26–27 in 2000.

14. Traditionally, women continued work in extended families with the help of kin care, but such extended families declined within a decade, from 22 percent in 1987 to 15 percent in 1997. When only the nuclear families are compared, a small rise (rather than a drop) is seen. Because the Basic Employment Survey only shows the work pattern of the last child, not the first, these results can be interpreted either as a small rise in continuation or as a slight speed-up in the return to employment.

15. Respondents could choose up to three options among the twelve candidates, such as one's self, father, kin, or whether day care, child care leave, or other institutional help was used.

16. See, for example, the wage regression for husbands and the effect of firm size in Appendix A, Table 8.A2.

17. Because information on the husband's income at childbirth is not available, I estimate the husband's permanent income from his educational attainment and from the size of the firm for which he works and used the predicted income for Table 8.5 (in Appendix A, Table 8.A2).

18. By factor analysis and scoring, three attitudes concerning marriage and family were taken out: the traditional attitude that places high values in marriage, in having children, and in supporting division of work between the sexes. The second axis was the individualistic attitude that supports one to pursue one's own objective in life and accepts divorce if a couple does not get along. The last attitude is one that supports sexual relationships before marriage, and the attitude that marriage and a love affair are different. The younger cohort had higher scoring for

the last, the older for the first, and the more educated for the second, on average. See Appendix A, Table 8A.1.

19. Women with nine years of education composed 16 percent of women in their 40s, but only 3 percent of those in their late 20s to early 30s. Therefore, the women with nine years of education compose some share for the women with children in the higher age group, but not so much so for women with small children.

20. The first income category is "less than 1 million yen," which is near the upper threshold below which income tax is not levied, as explained earlier. The income category increases by 1 million yen to more than 5 million yen.

21. The estimation was made correcting the censoring using Heckman (1976).

$W_i = X_i'\beta + u_{1i}$ Wage regression

$Z_i'\gamma + u_{2i} > 0$ Selection equation for labor participation

$u_1 \sim N(0,\sigma)$

$mu_2 \sim N(0,1)$

$Corr(u_1, u_2) = \rho$

The likelihood for observation i is

$$L(\beta, Z, \sigma_2^2, \rho) = \prod_{di=0}\left\{1 - \Phi\left(Z_i'\gamma\right)\right\} \prod_{di=1}\left[\left\{Z_i^1\gamma + \rho\sigma_2^{-1}\left(W_i - X_i'\beta\right)\right\}/\sqrt{1-\rho^2}\right]$$
$$\sigma_2\phi\left\{(W_i - X_i'\beta)/\sigma_2\right\}.$$

The husband's wage was estimated by OLS wage regression (see Appendix A), and the estimated value was used for an explanatory variable in the women's wage regression.

22. According to the Ministry of Labor's Survey on the Diversification of Workers of 1999, the average work week of part-time workers was 27.9 hours, while the average was 40.3 for full-time regular workers.

23. Five thousand enterprises with 30 and more employees, excluding mining, construction, education, welfare, and medicine were selected, with replies from 1,128 enterprises. Among those enterprises that replied to the first survey, the survey sheet for nonstandard workers was to be given to no less than 10 nonstandard employees at the workplace. The workers were to return the questionnaires by mail.

24. The percentage is comparable to a larger survey, *Survey on Part-Time Employees*, conducted by Ministry of Labor in 1995. Forty percent of short-work-week, part-time workers intentionally adjusted their annual income to not exceed the limit of tax-free income. The percentage had risen by 5 percentage points from 1990. Because of the general increase in the wage level, more part-time workers are constrained by the non-tax income limit, which stayed about the same during the period.

25. According to the Statistics Office's Labor Force Special Survey, the population of nonstandard workers in 2001 was 27 percent male and 73 percent female. Among females in nonstandard dependent employment, about 60 percent are married, if the rate shown by Basic Employment Survey of 1997 is used. In this year, among female nonstandard workers, 62 percent were married. This particular survey

included 17 percent males and 28 percent nonmarried females. Sixty-five percent of females were married.

26. The estimation was made correcting the censoring using Heckman (1976).

$W_{1i} = X_i\beta_1 + u_{1i}$ Wage of those who target income

$Z_i\gamma_1 + u_2 > 0$ Selection equation for income targeting

where $u_1 \sim N(0,\sigma_1)$

$u_2 \sim N(0,1)$

$Corr(u_1, u_2) = \rho_1$

$W_{2i} = X_i\beta_2 + u_{3i}$ Wage of those who do not adjust work hours for the purpose of tax and other considerations

$Z_i\gamma_2 + u_{4i} > 0$ Selection equation for not adjusting work hours

where $u_3 \sim N(0,\sigma_2)$

$u_4 \sim N(0,1)$

$Corr(u_3, u_4) = \rho_2$

The likelihood of observation i is

$$L\left(\beta_j, Z, \sigma_j^2, \rho_j\right) = \prod_{di=0}\left\{1 - \Phi\left(Z_i'\gamma_j\right)\right\}\prod_{di=1}\left[\left\{Z_i'\gamma_j + \rho_j\sigma_j^2\left(W_i - X_i'\beta_j\right)\right\}/\sqrt{1-\rho_j^2}\right]$$

$$\sigma_j^{-1}\phi\left\{\left(W_i - X_i'\beta_j\gamma\right)/\sigma_j\right\}$$

($j = 1, 2; j = 1$, income targeting; $j = 2$, income nontargeting)

Appendix A

Table 8A.1 Factor Analysis of Marriage Attitudes

	Traditional	Individualistic	Openness in sex	Uniqueness
Remaining single one's entire life is no good	0.503	−0.124	0.023	0.731
Couple should get married if they live together	0.634	−0.153	−0.181	0.542
Sex before marriage is all right if there is love	−0.241	0.064	0.332	0.827
One should have an independent aim in life besides one's family	−0.165	0.283	0.269	0.820
Partly sacrificing one's way of life or one's trait is natural when married	0.258	−0.484	−0.027	0.699
Men should do market work and women domestic work	0.365	−0.465	−0.069	0.645
One should have children when married	0.570	−0.229	0.013	0.622
Not getting along is not enough reason for divorce	0.452	−0.256	−0.080	0.724
Marriage and love are different	−0.084	0.020	0.219	0.945

NOTE: "Traditional values" place high value in marriage, in having children, and in supporting division of work between the sexes. "Individualistic values" support one to pursue one's own objective in life and accept divorce if a couple does not get along. "Openness in sex" supports sexual relationships before marriage, and also the value that marriage and a love affair are different.

SOURCE: Nagase (1999).

Table 8A.2 Husband's Income Regression

	Coefficient	*t* value
High school	39.3***	4.96
College	44.5***	4.30
University	126.8***	15.17
Firm size > 10	65.6***	6.66
Firm size 10–29	83.6***	8.49
Firm size 30–99	103.8***	10.23
Firm size 100–299	142.6***	13.78
Firm size 300+	221.1***	24.95
In public service	212.4***	19.68
Being self-employed	77.2***	8.85
Constant	361.5***	38.66
Sample size	6,811	
Adjusted R^2	0.1924	

***$p = 0.01$.
SOURCE: Nagase (1999).

References

Asakura, Mutsuko. 2001. *Jenda to Rodo Ho* (Labor Law and Gender). Tokyo: Yuhikaku.

Heckman, James. 1976. "The Common Structure of Statistical Models of Truncation, Sample Selection Bias and Limited Dependent Variables and a Simple Estimator for Such Models." *Annals of Economic and Social Measurement* 5: 475–492.

Higuchi, Yoshio. 1981. "Joshi no Tanjikan Oyobi Futuu Koyo Kikai Heno Kyokyu Kakuritu Kettei Yoin to Sono Keisoku." *Mita Shogaku Kenkyu* 24(4): 52–79.

Ichino, Shozo. 1989. "Paato Taimu Rodo Shijo no Henbo" (The Transformation of Part-Time Labor Market). *Nihon Rodo Kenkyuu Zasshi* 31(5): 16–30.

Nagase, Nobuko. 1994. "Kikon Josei no Shugyo Sentaku ni Kansuru Jissho Bunseki: Paato to Seishain" (Empirical Studies on the Work Choice of Married Females: Part-Time Work and *Seishain*). *Nihon Rodo Kenkyuu Zasshi* 418: 31–42.

———. 1995. "Paato Taimu Sentaku no Jihatsusei to Chingin Kansuu" (Wage Function of Part-Time Workers: Is Their Choice Voluntary?). *Nihon Keizai Kenkyu* 28: 162–184.

———. 1997a. "Wage Differentials and Labor Supply of Married Women in Japan: Part-Time and Informal Sector Work Opportunities." *The Japanese Economic Review* 48(1): 29–42.

———. 1997b. "Josei no Shugyo Sentaku: Kateinai Seisan to Rodo Kyokyu" (Women's Work Choice: Home Production and Market Work). In *Koyo Kanko no Henka to Josei Rodo* (Labor Practice Change and Female Labor), H. Chuma and T. Suruga, eds. Tokyo: Tokyo University Press, pp. 279–310.

———. 1999. "Work and Childbearing Choice of Married Women in Japan: Is It the Effect of Labor Practices or Is It the Difference in Attitudes?" *Journal of Population Problems* 55(2): 1–18.

———. 2000. "Report on the Project on the Analysis of Eleventh National Fertility Survey." Unpublished manuscript.

———. 2001. "Josei no Shugyo Keizoku to Ikuji Kugyo Seido" (Parental Leave and Women's Attachment to Work). In *Shoshika ni kansuru Kazoku Rodo Seisaku no Eikyo to Shoshikano Mitoshi ni kansuru Kenkyu* (Effect of Labor Policy and Family Policy on Childbirth), S. Takahashi, ed., Kosei Kaken Seisaku Kagaku Suisin Kenku Jigyo Kadai H12-Seisaku-009, pp. 280–295.

Nagase, Nobuko. 2002. "Hiseishain no Seishain no taisura Chingin Kakusa no Nattoku ni kansuru Bunseki" (Is the Wage Gap Accepted as a Fair Gap? The Wage Structure and Job Characteristics Differences Between Standard and Nonstandard Workers). *Nihon Rodo Kenkyu Zasshi* 44: 84–85.

Nihon Rodo Kenkyu Kiko. 2001. *Ikuji Kaigo Kyugyou Seido ni kansuru Chousa Kenkyu Hokokusho: Kesu Sutadei wo Chushin ni* (Case Study Report on Child Care Leave and Old Care Leave). Shiryo Series 108. Tokyo: Japan Institute of Labor.

Nitta, Michio. 1993a. "Paato Taimu Rodo no Jittai" (Part-Time Workers: The Reality). *Jurisuto* 1021: 33–38.

———. 1993b. "Paato Taimu Rodo no Jittai wo Meguru Ronten Osawa Jokyoju no Hihan ni Kotaete" (In reply to the Comment made by Mari Osawa). *Jurisuto* 1031: 98–101.

———. 2001. "Modes of Employment in Japan." In *Can Japan Globalize? Studies on Japan's Changing Political Economy and the Process of Globalization in Honor of Sung-Jo Par*, A. Holzhausen, ed. Heidelberg: Physica-Verlag.

Osawa, Machiko, and Haruko Suzuki. 2000. "Josei no Kekkon, Syussan Oyobi Jintekishihon no Keisei ni Kannsuru Panerudeta Bunnseki" (Time

Series Analysis on Women's Marriage, Timing of Birth and Human Capital Formation). *Kikan Kakei Keizai Kenkyu* 46(Spring): 45–53.

Osawa, Mari. 1993. "Nihonteki Pato no Genjo to Kadai" (Japanese Part-Time Workers: How They Are and What Problems They Have). *Jurisuto* 1026: 133–137.

———. 1994. "Nihon no Paato Taimu Rodo toha Nanika" (What Is Distinct about the Japanese Part-Time Labor?). *Kikan Rodoho* 170: 34–51.

Sato, Hiroki. 1998. "Hitenkeiteki Koyo no Jittai" (Status of Nonregular Workers). *Nihon Rodo Kenkyuu Zasshi* l462: 2–14.

Study Group at Cabinet Office. 2001. "Kazoku to laifu Sutairu ni Kansuru Kenkyuukai Hokokusho" (Report of the Study Group on Family and Life Style). June. Tokyo: Quality of Life Policy Bureau.

Sugeno, Kazuo. 1997. *Koyo Shakai no Ho* (Employment Society and the Law). Tokyo: Yuhikaku.

Sugeno, Kazuo, and Y. Suwa. 1998. "Paato Taimu Rodo to Kinto Taigu" (Part-Time Labor and Equal Treatment). In *Gendai Yoropa Ho no Tenbo* (Surveys of the Law in Contemporary Europe), I. Kitamura, ed. Tokyo: Tokyo University Press.

Takeishi, Emiko. 2001. "1990 Nendai Koyo Kanri no Henka to Kigyonai Kyaria Kozo" (Changes in the Employment Relationship in 1990 and the Career Structure within Firms of Women in Japan). Ph.D. dissertation, Ochanomizu University.

Nonstandard Work
in Developed Economies

Causes and Consequences

Susan Houseman
And
Machiko Osawa
Editors

2003

The facts presented in this study and the observations and viewpoints expressed are the
sole responsibility of the authors. They do not necessarily represent positions of the
W.E. Upjohn Institute for Employment Research.