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Gender Differences in the Career Paths and Wages in the Japanese Labor Market

Machiko Kitagawa

GENDER DIFFERENCES IN THE CAREER PATHS AND WAGES IN THE JAPANESE LABOR MARKET

by

Machiko Kitagawa

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Machiko Kitagawa

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Machiko Kitagawa, M.A.

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This study examines the gender gap in career patterns in the Japanese labor force, with particular attention to the role of education. A chief concern regarding employment for women is the worsening situation of college-educated women in terms of wages and employment opportunities.

Two cohorts of age groups, 25-29 and 40-44, are used to examine gender differences in career paths by educational level. The latter section of study examines the determinants of the average monthly earnings of male and female regular employees.

Analysis revealed significant differences between men's and women's employment patterns and wages during the middle ages. The study concludes that the seniority wage system and lifetime employment that are practiced in Japan is disadvantageous to women.

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CHAPTER I

INTRODUCTION

University-educated Japanese women in particular have experienced difficulties in finding jobs in past decades. The Equal Employment Opportunity Law opened more job opportunities to female four-year university graduates. However, the opportunities for female graduates from four-year universities are still limited both in comparison to male graduates from four-year universities and also to female graduates from junior colleges. For a long time, Japanese companies have shown a preference for female two-year college graduates over four-year university graduates. It has been based on the assumptions that two-year college graduates were paid less, tended to work more years than four-year university graduates and quit upon marriage before their wages went up under the seniority wage system. During the prosperity of the Japanese economy in late 1980's, more companies began to hire female four-year university graduates, in some cases, for management track position.

The downturn in the Japanese economy in the 1990s has served to diminish employment opportunities once again for university-educated women.

Previous studies have found that improvements in women's education attainment were not related to improvement in occupational opportunities (Saso, 1990 and Brinton, 1993). I will investigate this issue using published reports of official surveys to compare how labor force mobility patterns differ by sex, with particular attention to occupational status or income by different levels of education for men and women.

The following chapters discuss the relationship between the changing features of Japanese employment and women's careers, especially focusing on the role of education. Chapter 2 describes several important characteristics of the labor market, and how it operates to segregate women. The chapter also deals with the theory and practice of the labor market discrimination against women in Japan. The following section turns to the contemporary issues of women's employment in Japan. First, statistical data will be provided to clarify the situation. It also examines gender roles in Japanese

society and my perception of women's attitudes toward their situation.

Literature review in Chapter 3 focuses on college graduates and the relationship between educational background and differences in employment situation. The controversial debate on the characteristics of the wage determination process will also be introduced.

Key questions of the study are addressed in Chapter 4. How and why men and women's mobility patterns diverge over the life cycle? What is the educational benefit for women in the labor market compared to men? These questions are examined using published statistics of the Japanese government data.

Chapter 5 begins with a general description of the research design. Next, operational definitions are given for each variable under the study. This is followed by a presentation of the data. Then, an explanation of the research analysis to be used to investigate the research questions is detailed. Finally, data limitations in this study will be discussed.

Chapter 6 presents the analysis of gender differences in career mobility patterns over life cycle.

Chapter 7 attempts to estimate the effect of several factors on the wages of regular employees.

Finally, Chapter 8 summarizes all the major findings of this study and discusses the significant implications and limitations of the study.

CHAPTER II

BACKGROUND OF OCCUPATIONAL STRUCTURE IN JAPAN

This chapter is intended to describe the gendered Japanese workplace and the role of women in the labor force. The first section explores the enhanced, but still limited, career opportunities that have opened up to Japanese women under the Equal Employment Opportunity Law, and appearance of a new track system for female graduates. Then, I will review relevant theories regarding gender inequality in the labor market.

The following section discusses contemporary issues of women's employment. It starts from the present statistical information about women in the Japanese labor force then moves into the exploration of the family responsibility and working patterns of women. Factors that account for women's increased engagement in part-time employment will be discussed. It also examines gender roles in Japanese society and women's attitudes toward their situation.

Japanese Style of Employment

Lifetime employment, seniority system in wage and promotion, and enterprise unionism are three key features used frequently to represent the Japanese labor market. Under the lifetime employment system, employees do not leave their jobs during periods of high employment and firms do not lay off workers during downturns (Brown and Nakata, 1997). This practice is supported by the seniority wage and promotion system. In a lifetime employment system, seniority is viewed as a measure of the training received by workers. Workers are rewarded by promotion and other incentives according to their seniority within the firm. Wages and promotion possibilities of employees are largely determined by seniority, rather than on the basis of employees' productivity and performance. It is believed that an important function of the seniority wage system is to retain workers and, consequently, to sustain a long-term employment system (Aiba, 1998).

In order to maintain some degree of flexibility,

companies utilize temporary workers and part-time workers for adjusting to business fluctuations (Gottfried and Hayashi, 1998). They are hired when the economy is expanding. They may stay with their companies for some time, but they are liable to be dismissed when the economy faces a downturn. According to the Labor Force Survey, the proportion of part-time workers or temporary workers of all male workers is 11.8 percent, whereas the proportion of part-time workers and temporary workers of all female workers is 45.1 percent (Management and Coordination Agency, 1999). Female workers, therefore, play an important role in maintaining the flexibility of the employment system.

In addition, the tendency of companies to use seniority as a basis for promotion and wage determination operates to the disadvantage of women. In Japan it is a customary practice for women to quit jobs when they marry. Women who have lost their accumulated seniority when they leave the job are disadvantaged when they reenter the labor market. Thus, it is clear that most women do not get benefits equal to those that men receive from the Japanese lifetime employment system.

Seniority system on wage determination and promotions tends to be used more often among large sized firms than small and medium-sized firms. Also, large firms have higher rates of unionization among workers than small firms. Nearly all unions in Japan are organized at the company level. The rate of union participation is only just over 20 percent, and female workers are less unionized than male workers (17.7 percent compared to 28.5 percent, respectively in 1991) (Kawashima, 1995). Interests of other types of workers such as temporary and part-time workers, consisting mostly of women, are rarely represented by enterprise unions.

Policies regarding lifetime employment and seniority wage are not applicable to all workers in the large firms. Women who find employment in large firms typically work as "Office Ladies" (OLs), a position without a formal port of entry into internal labor markets. Office Ladies whose major functions revolve around performing menial tasks such as making photocopies, doing light secretarial work, serving tea to the male personnel and guests and, in general, creating a

pleasant atmosphere. Looks and personality are more important than skills or credentials for these employees (Carney and O'Kelly, 1987). For this reason, companies often prefer to hire female junior college graduates than four-year university graduates for such positions.

Equal Employment Opportunity Law

The Employment Opportunity Law was enacted in 1986 to prohibit sex discrimination in training, welfare provisions and mandatory retirement age, retirement and dismissal. The law only obligated employers to "endeavor" to treat both genders during these stages of employment and could not enforce sanctions against violators. This prompted criticism that the EEOL lacked effectiveness, creating a social problem of employment discrimination against women especially after the collapse of the "bubble economy."

The revised Equal Employment Opportunity Law came into effect in April 1999. With regard to discrimination against females in recruitment, hiring, assignment and promotion, employers were formerly required to endeavor to provide equal opportunity. The revised EEOL clearly

prohibits discriminatory treatment of women in these categories. Companies violating the law will be punished by having their names officially released. The reform of the law is an improvement, but continues to fall short of including strong penalties for firms that discriminate against women.

Two-track System

The two-track system is a system which divides workers into two categories: (1) a management track leads to managerial positions, but accepting possible overtime and transfer is a requirement, and (2) a general track is a secondary track in which work is routinized and opportunities for promotion are limited. Based on the assignment of these tracks, workers are treated in a different manner in terms of recruitment, hiring, assignment, promotion, wages, education and training and transfers. After the 1986 Equal Employment Opportunity Law went into effect, the number of companies establishing such a tracking scheme has increased. It was noted that the larger the company, the higher the percentage of those that have adopted the two-track

system. Fifty two percent of companies with 5,000 and more employees have instituted such a system, followed by 34.3 percent of companies with 1,000 to 5,000 employees. In 1995 for example, 72.3 percent hired only males for managerial track and 27.6 percent employed both males and females for managerial track (Ministry of Labor, 1995). Men are automatically assigned to the management track, while only exceptional women were selected for it. Thus, the track system is aimed at dividing permanent regular workers into two groups, one consisting of all male workers and a small number of women who benefit from the seniority-based wage system and the other is made up of the majority of women, who are excluded from this system. This enables firms to sustain the seniority-based wage system for core workers holding the other group's wage at a lower level (Kawashima, 1995).

Changing Employment Opportunities

The period between 1987 and 1990 was the so-called "bubble economy" in Japan. During this time, prices of stock and lands became outrageously higher than their actual economic utility. Under the bubble economy,

women's employment opportunities increased more significantly than in other periods. A remarkable thing was the high employment rates of female university graduates during the bubble economy. In 1991, employment rate of female university graduates was 81.8 percent, which was slightly higher than male graduates (81.1%). However, women's job prospects were short-lived as the Japanese economy went down in the early 1900s. In 1995, employment rate of female university graduates went down to 63.7 percent, which was lower than male graduates (68.7 %) (Ministry of Labor, 1997). There were many cases in which female graduates were not given an equal opportunity to get a job compared with male graduates in the severe employment situation in recent years. For example, many companies failed to provide female students with the necessary information on the recruitment and hiring and imposed limits on the number of women to be employed.

The recent recession has undermined the foundations of the lifetime employment system. At the same time, increased numbers of aging workers make the lifetime employment system very difficult to maintain. It was

argued that the natural reaction of managers was to disregard the basic seniority principles and cut the wages of older and more experienced workers, thereby reducing expenses. Some economists disagree with this proposition. They believe that the basic seniority principles are essentially rules for distributing jobs and rewards among employees. These rules are economically rational for both employers and employees and, therefore, resistant to changes in external economic conditions (Tachibanaki, 1996). The basic structure of the Japanese employment system remains intact.

A recent modification is to increase the use of temporary employees to preserve the lifetime employment system for core male workers. The sharpest rise in short-time employment occurred during the early 1990s. The proportion of temporary and daily employees increased to 6.4 percent for men and 20.3 percent for women in 1990, compared to 5.2 percent for men and 14.7 percent for women in 1975. Temporary workers have contracts with a period of employment lasting more than a month but less than a year. The employment contract for day laborers lasts less than a month. Females predominate among

temporary and day laborers. In 1999, only 32.6 percent of these workers were male (Management and Coordination Agency, 1999). Thus, female workers who fall outside the lifetime employment system experience less job security and more economic uncertainty.

Explaining Gender Inequality in Employment

One of the major explanations of gender inequality in the labor market is human capital theory. A basic premise of this concept is that higher levels of educational attainment increase individuals' productivity and, consequently, their earning capacity (Tachibanaki, 1996). From the perspective of human capital theory, women are paid less because they are assumed to have less human capital such as education, qualifications, training, experience and skill. One key assumption of human capital models is that women are more likely than men to leave their jobs, thus experiencing more career interruptions and providing less attractive candidates for advanced training. Human capital theory stresses the education and employment choices of workers in determining their productivity.

Empirical studies in the literature typically uses regression analysis for individual wage figures against such individual human capital measures as education, training, experience, and age. Other control variables, such as occupation, industry, and union status, are also typically included in these regression analyses. Residual wage differentials, those not explained by human capital variables and other control variables, may be attributed to employer discrimination. It is very important to assess explanations for the gender gap in wage and promotion based on empirical data to consider the future policy responses. The following sections identify several barriers that hinder the progress of women, and result in lower occupational position and wages.

Contemporary Issues of Women's Employment

Women's Employment Patterns

To understand the role of women in the labor force, it is necessary to look at women's employment patterns in Japan. In 1999, 27.6 million Japanese women were in the labor force. The rate of labor force participation was

50.1 percent among all women of age 15 or over. Women constituted 38.5 percent of the total Japanese work force (Management and Coordination Agency, 1999).

The typical careers of Japanese women have been described as consisting of three parts: (a) entering full-time positions immediately after graduation from school, (b) quitting their jobs to get married or to raise children, and (c) reentering the labor force as part-time workers after their children grow up (Matsui, Osawa, & Onglatco, 1991). There are a number of reasons Japanese women may follow the employment patterns described above.

One reason for Japanese women's shot-term involvement as full-time workers may be due to poor social and institutional support provided for working mothers. Particularly, mothers of small children, who nowadays have less chance of relatives to help them, are finding it extremely difficult to keep full-time jobs. Japanese mothers have access to childcare through government authorized day-care centers, but most centers require parents to pick up their children between 4:00 and 6:00 p.m. Transportation is time consuming, and long

hours of work make problems for working mothers. Centers that take babies less than a year old are extremely limited. Compared with the situation in the United States, Japanese mothers have few alternatives since such arrangements as neighborhood babysitting rarely exist.

Related to the issue of difficulties in the child-rearing period is the burden of caring for aging parents. The aging of Japan's population is proceeding so rapidly in step with the declining birth rate that a welfare system has not yet been established to cope with the large number of elderly (Omori, 1993). Now, female employees have to face the difficulties of caring for aging parents after the child-rearing period.

In addition to the institutional obstacles, there may be psychological barriers which affect Japanese women's career development. Social pressure may be one of such barriers. There are strong social norms for women to leave the labor force during the early years of child rearing in order to concentrate on the roles of wife and mother. Even the younger Japanese women themselves think that the primary caretakers of children are their mothers, therefore, women should stay at home

while children are small. According to the Employment Status Survey in 1997, only 25.2 percent of all mothers with children younger than three years old are in the paid labor force (Management and Coordination Agency, 1997). Increasingly, however, in recent years, women reenter the paid sector after their children are in school. But typically, they are given temporary or part-time positions with no job security, much lower pay, and few if any benefits or opportunities for advancement.

Part-time Employment

Many women reenter the labor force after their children grow up. For many of the middle-aged women, job openings available for mid-career are limited to part-time jobs or jobs in the small firms. A majority of part-time workers are married women who want to combine their family responsibilities and paid work. Since these women accept low wages in return for flexibility in working hours, small firms benefit from a cheap labor force. Female part-time workers are strictly excluded from the wage structure, from permanent employment, and from many benefits that full-time workers enjoy. Looking

at wage differentials, for example, female part-time employees' hourly wages are about 20 percent lower than those of full-time workers.

The tax system also encourages married women to work as part-time employees. When a woman earns more than the maximum non-taxable yearly income (at present, 1 million yen a year, approximately $8,000), she must pay income tax on her earnings and her husband loses not only the tax deduction for his spouse but also the spouse allowance from his company. So she adjusts her working hours to keep her income below the taxable level in order to maximize the disposable income for their household.

In addition to part-time employment, the number of contract workers dispatched by employment agencies has been increasing. The majority of these are women and they share the same characteristics of low wages and lack of employment stability with the part-time employees.

CHAPTER III

LITERATURE REVIEW

This first section presents a literature review regarding the Japanese women's employment in relation to education, especially focusing on female college graduates. The following section offers empirical facts about wage determination and wage differentials in Japan.

Female College Graduates in the Japanese Labor Market

Most of the relevant literature describes the way in which the Japanese labor market largely excludes women from the benefits of the lifetime employment system. Bonney (1994) argues that because of the combined force of gendered education, assumptions about gender roles made by the government and employers, women have less opportunity to enter and maintain their paid work positions that lead to occupational mobility and higher rewards in employment.

Equal educational opportunity for both male and female has been achieved to a large degree at the high

school level, but at the college level substantial gender differences in educational opportunities still persist. Almost all men receive a four-year university education, while a large proportion of women receive their higher education at a two-year junior college. In 1998, the percentage of students who were enrolled in four-year universities was 44.9 percent for males and 27.5 percent for females, while that in two-year college was 2.2 percent and 21.9 percent, respectively (Ministry of Education, 1998).

Similarly, the gender track in higher education remains in the form of a heavy concentration of women in such courses as home economics, humanities, and education. One of the reasons why female students continue to concentrate on particular courses of study is that the range of study options offered at most private women's universities and junior colleges is extremely limited. Traditionally, male professional subjects such as engineering, business, and science are almost totally absent from their curriculum. Most women simply have not been given an opportunity to choose nontraditional study options.

Sex segregation is also seen in parent' educational aspirations for children (Brinton, 1998). In Japan, many parents bear considerable monetary costs for tutors and after-school education to help their children pass the entrance examinations to enter good high schools and universities. Japanese parents have a strong degree of control over their children's education. In general, Japanese parents overwhelmingly prefer a university education for their sons. Brinton (1998) argues that the investment parents make in their male and female children will influence the extent to which the two sexes are able to compete successfully in educational contests and in the contest for entry-level positions in the labor market which critically determines eventual wages.

In addition, education is a resource in the marriage market in which women with higher education are more likely to marry men with higher education who will have higher earnings. Saso (1990) argues that the main ambition of most parents for their daughters is for them to be married to occupationally successful husbands and devoted to the upbringing of their own children. Young women themselves prefer a life which gives priority to

marriage, child care and domestic roles over paid employment. Saso (1990) has noted that withdrawal from paid work upon marriage or childbirth is particularly marked among more educated women. As mentioned above, women with higher educations are more likely to marry men with higher incomes. Thus, they have access to greater economic resources, enabling them to choose to stay out of the paid labor market.

In the present day, most women tend to show a relatively short-term commitment to their jobs. Many women decide that it is more realistic to settle for a clerical job at some big company and work for a few years than to try to get a management-track position. They consider work primarily as a way of gaining some experience and also enjoying the money they earn for a while before getting married. These women plan to stop working when they have children and to resume work again when their children reach a certain age.

On the other hand, Lam (1992) observes that the few female graduates who advanced in the management hierarchy in a relatively progressive department store chain which she studied were mostly single and in their thirties, an

age usually regarded in Japanese society as being too late for marriage. Progress for women moving up to the managerial hierarchy in Japan often requires women to abandon goals of marriage and motherhood.

There is an another sub-group of women who have been able to secure professional employment and display long-term commitment in their paid work. In contrast to the managers analyzed in Lam's case study, they have been able to continue in responsible employment positions while at the same time being married and raising children. As a sub-group of Japanese women, they are of importance since they challenge common generalizations about female workers and especially female college graduates.

While nearly all women anticipate taking a job after finishing college, their attitudes and motivations toward work and their long-term career plans vary considerably. These findings suggest that the life courses of Japanese women show signs of increasing career differentiation for university-educated women.

Wage Determination in the Japanese Labor Market

This section presents general features of wage determination in Japan. Employers in Japan pay wages and determine the promotion of employees largely by the workers' seniority (i.e., job tenure and age). Controversy in Japan regarding seniority wage revolve around the issue whether age or job tenure is more important in wage determination. Some authors believe that age is much more important than job tenure as a variable which differentiates wage levels (Ono, 1989). They propose that employers pay wages to their employees on the basis of employees' living expenses. The notion of the living expenses assumes that the wage of a male breadwinner should be sufficient to support his dependents. This is because a great number of Japanese families depend on a single earners' pay check.

On the other hand, Koike (1988) emphasizes the importance of the seniority wage system by focusing on the Japanese system of skill formation characterized by extensive internal promotion and wide-ranging job rotation. He argues that workers develop their skills

through their experience of various tasks within the internal labor market. Because skills develop with the accumulation of length of service in the same firm, wages also increase with length of service.

A second variable to which particular attention is paid in Japan is the effect of firm size on wage determination. According to Tachibanaki (1996), the influence of the difference in firm size has declined consistently after the Second World War. He argues that wage differential due to firm size is affected strongly by the movement in business cycles. When the economy is experiencing a boom, wage differential by firm size declines because smaller firms are able to pay higher wages. When the economy is in recession, the differential increases due to the opposite reason. Recently, the wage differential by size of firm is reappearing. The "post-bubble economy recession," that occurred in the late 1980s and the early 1990s is responsible for a wider wage differential by size because of the negative correlation of wage differential by firm size with the business cycle. Thus, although the wage differential by firm size is not so great as it was

believed to be in the past, it is still a prevailing phenomenon in Japan.

One of the most fundamental reasons underlying size differentials is the quality of labor. In Japan, large firms attract workers with higher quality because they offer better working conditions. Also, large firms train their employees systematically and intensively over their whole career and the firm-specific skills accumulated by workers are likely to form the base of higher wages in large firms. However, a study by Tachibanaki (1996) showed substantial wage differentials after controlling for various variables such as education and work experience. Thus, he argues that higher wages in large firms are not explained by higher qualifications of employees. Another popular explanation of wage differentials in Japan is that large firms can afford to pay higher wages because they tend to have higher productivity resulting from better equipment and higher capital-labor ratios.

The third variable is formal education and its impact on the determination of wages. Educational achievement has two dimensions. The first dimension is

the higher educational level such as high school, junior college, or university graduation, and the second dimension is graduation from a prestigious school or a particular university.

The screening hypothesis, a concept proposed by Arrow (1973) and Spence (1973), argues that education is viewed as a device for sorting recruits into different levels of on-the-job training. Tachibanaki (1996) found that neither junior nor senior high school graduates had much chance of promotion even if they had longer experience. In other words, the entry-point or the initial stage of the career sorts workers into two categories; the first comprises of workers whose future promotion possibility is extremely limited and the second comprises of workers whose potential for promotion is open. Thus, the first occupation determines one's professional life to a considerable extent and it is largely determined by one's educational attainment (Tachibanaki, 1996). Both higher educational attainment and consequent occupational achievement contribute to higher earnings.

Thesis of "educational credentials" is a more direct

form of educational signaling. According to this theory, education guarantees certain benefits for a person who has a higher education or who has graduated from a particular school or university (Ishida, 1995). In Japan, there is tremendous competition for educational achievement and extraordinary benefits are paid to a limited number of successful educated workers who have been promoted to superior positions. Tachibanaki (1996) proposes that hierarchical position, which is determined by educational attainment of workers to a considerable extent, plays an important role in explaining earnings distribution in Japan.

CHAPTER IV

RESEARCH PROBLEMS

Statement of the Problems

In the paid labor force, educational background is one of the important determinants of wage scales and promotion opportunities. However, findings of previous studies suggest that education has not been fully translated into career advancement for Japanese women, which is largely due to the limited employment opportunities for married women. Previous studies have consistently reported that education has a negative effect on labor force participation level among married women (Osawa, 1986 and Tanaka, 1995). A career interruption is a severe handicap in Japan. In western countries, women can use external professional training as credentials for their career development. In Japan, however, the importance of seniority rules and inter-company training for job allocation and promotion create greater institutional barriers for women.

Research Questions

In this research I will investigate the disadvantaged position of female workers in the Japanese labor market, with particular reference to the role of education. The following two research questions are crucial for my research:

1. How and why men and women's mobility patterns diverge over the life cycle?

2. What is the educational benefit for women in the labor market compared to men?

Published statistics of the Japanese government are utilized in the examination of these questions.

CHAPTER V

RESEARCH DESIGN

This section of the study begins with a general description of the research method. Next, operational definitions are given for each variable in the study. This is followed by a description of each data set used in the analysis. Then, an explanation of the research analysis to be used to investigate the research questions is detailed. Finally, data limitations in this study will be discussed.

Research Methods

This study utilizes analysis of quantitative data that are available in published reports. The analysis consists of two sections. First, I will look at gender differences in the mobility patterns by age groups. As a part of this analysis, I will also examine the impact of educational level on the mobility patterns of both sexes. Secondly, I will examine the gender wage differentials in terms of education and additional factors. The analysis

will involve quantitative descriptive statistics. I will be employing only descriptive statistics because inferential statistics are not applicable for the analysis of data with such large numbers.

Measurement of Variables

1. Age. The analysis of gender difference in mobility patterns involves two age groups of working population of men and women, 25-29 and 40-44 years old. These two groups will be compared in regard to relationship between level of education and mobility patterns. The first cohort represents people who have recently entered the labor market. The 25-29 age cohort was chosen over the younger cohort of 20-24 years old in order to minimize the number of respondents who would still be students. By studying the 25-29 age group, we can see to what extent men and women's work experiences are similar or different. The older cohort of 40-44 years old offers documentation of how men and women's employment patterns diverge over their work life. In the analysis of wage determination, age is categorized as 20-24, 25-29, 30-34, . . . , 60-64 and 65 or over.

2. Employment status. Employment status includes four major categories. They are: (1) self-employed, (2) family workers (family members who assist in the work of independent family businesses), (3) full-time employees and (4) part-time employees. I have included "Arubaito" and dispatched workers as part-time employees. Arubaito jobs apply to both men and women who work non-conventional hours. Arubaito jobs typically are filled by high school and college students. The term dispatched workers refers to those dispatched by contract labor companies and those hired by an employing firm.

3. Occupation. Occupations are classified into ten categories by the basis of "Standard Industrial Classification for Japan" as (1) professional and technical workers, (2) manager and officials, (3) clerical workers, (4) sales workers, (5) agricultural, forestry, and fishery workers, (6) workers in transport and communications occupations, (7) craftsmen, production process workers and laborers, (8) protective service workers, (9) service workers and (10) workers not classifiable by occupation.

In the study of wage differentials, two types of

worker are examined: "Blue-collar" workers who perform production duties of a physical nature, and "white-collar" workers who are engaged in tasks which are largely administrative, technical, or clerical in nature.

4. Size of firm. Size of firm is classified into three categories as, (1) large firms with 1,000 or more full-time employees, (2) medium-sized firms with 100-999 full-time employees and (3) small firms with 10-99 full-time employees.

5. Industry. Industries are classified into nine categories according to the one-digit broad industry classification: (1) mining, (2) construction, (3) manufacturing, (4) electricity, gas, heat, supply and water, (5) transport and communications, (6) wholesale, retail trade, eating and drinking place, (7) finance and insurance, (8) real estate and (9) service industries.

6. Educational level. Educational level is measured by four categories: (1) Junior high school graduates, (2) Senior high school graduates, (3) Junior college or technological college graduates and (4) College or university graduates. Educational attainment is measured by the graduation level. The years of schooling

corresponding to the graduation level are 9 years for junior high school, 12 years for senior high school, 14 years for junior college, and 16 years for college or university.

7. Wages. Two types of wage measures are used in this study: (1) monthly cash earnings excluding bonus payment of regular workers and (2) the starting salary of new graduates. Regular worker refers to either a worker without fixed employment term or to a worker with a fixed term of more than four months. Starting salary refers to monthly cash earnings excluding over-time allowance for new graduates actually employed as of June 30, 1998. This study uses only the average wage figures for various groups of workers and derives implications from these figures. Part-timers are excluded in the analysis of wage differentials.

Data Collection and Analysis

Data Collection

I examined the empirical aspects of this study using two sets of data. The primary sources on employment are the 1997 Employment Status Survey (ESS), (Management and

Coordination Agency, 1997) and the 1998 Basic Survey of Wage Structure (BSWS), (Ministry of Labor, 1998). The Employment Status Survey is the main source of data on labor force participation and employment patterns, while the Basic Survey of Wage Structure is used as the main source of data on wage structure.

The purpose of the Employment Status Survey is to portray the employment structure, change of economic activity, desire for work and other variables at both national and regional levels, depicting the economic activity in Japan. The survey has been usually conducted every three years since 1956. About 430 thousand households were selected from the 1995 Census enumeration districts and about 1.1 million members of the households aged 15 and over were surveyed.

The other survey, Basic Survey on Wage Structure (BSWS) has been conducted by the Ministry of Labor for the purpose of obtaining an accurate picture of the wage structure of regular employees in major industries in Japan. This survey has been conducted annually since 1948, carried out every three years on a large scale and on a small scale during the other two years. The survey

on a small scale during the other two years. The survey for 1998 covered approximately 71 thousand establishments with 10 or more regular employees and a total of 1.55 million employees.

Data Analysis

I will specifically conduct the following analysis. The first section examines the gender differences in mobility patterns and the role of education. Three variables are used in the analysis of labor mobility: (1) employment status, (2) occupation and (3) size of firm. Each variable is discussed in regard to relationship between level of education and mobility patterns. The following chapter examines the important factors affecting wage levels in Japan. The major variables investigated in this analysis are: (1) age, (2) years of experience, i.e. job tenure (3) size of firm, (4) industry and (5) occupation. This section also focuses on the gender wage differentials of regular employees.

Limitations of the Data

There are some problems in interpreting descriptive

statistics on gender differences, for example, whether to include or exclude certain type of workers. In Employment Status Survey, employees other than executives are classified as follows according to how their position is designated at their workplace: regular staff, part-timers, arubaito, and dispatched workers. As indicated earlier, arubaito refers to part-time jobs filled by high school and college students. Dispatched workers refer to those dispatched by contract labor companies and those hired by an employing firm. In the analysis of gender difference in mobility pattern, I have included arubaito and dispatched workers in the category of part-time workers.

In general, official data sets tend to contain behavioral data in the main, with relatively little data on the attitudes, values, perceptions and beliefs that are frequently available in non-official data sets. Therefore, attitudes and behavior regarding women's labor force participation, gender roles and education were introduced in Chapter 2 and Chapter 3, which describe gendered workplace and contemporary issues of women's employment in Japan. And, I have tried to link this

qualitative context with the findings obtained from quantitative analysis in the next chapter.

CHAPTER VI

CAREER PATH OVER THE LIFE CYCLE

In this chapter, I will utilize descriptive statistics to present the findings. The following sections start with the illustration of gender differences in mobility patterns during the life cycle of men and women. The variables examined here are employment status, occupation and firm size. Particular attention is paid to the relationship between educational background and differences in employment situation.

Employment Status

Employment Status Distribution of Workers in the 25-29 Cohort

Table 1 shows the distribution of workers' employment status by age cohorts. There are fewer distinctions between men and women during their early employment status. In the younger cohort, 95 percent of men and women are employees, and the remaining 5 percent are self-employed and family workers. Majority of men

Table 1

Employment Status Distribution of Male and Female Workers by Age Group

	25-29 (%)		40-44 (%)	
Employment status	Male	Female	Male	Female
Self-employed	2.8	2.6	11.5	7.1
Family workers	2.7	2.8	1.4	9.8
Full-time employees	88.1	69.7	84.3	41.1
Part-time employees	6.4	24.8	2.8	42.0
Total	100.0	100.0	100.0	100.0

and women in the younger cohort work as full-time employees. A significant difference in the employment status is that a larger percentage of young women (24.8 percent) than young men (6.4 percent) are part-time employees.

Employment Status Distribution of Workers in the 40-44 Cohort

Men's employment patterns show little change across cohorts: 84 percent are full-time employees and most of the remaining men are self-employed (11.5 percent). Very few men are engaged as family workers (1.4 percent).

For women, employment patterns diverge across age cohorts. Many women shift from full-time employment to part-time or home employment during their middle age.

Only 41.1 percent of women continue to work as full-time employees and 42 percent of women are employed as part-time employees in the older cohort. The remaining women are distributed between self-employed and family workers.

Labor Force Participation of Women

Figure 1 shows overall labor participation rates of women and the proportions of female full-time and part-time workers by age. The proportion of employed women among all women peaks at age groups 20-24 (74 percent) and 45-49 (72 percent) and bottoms at 30-34 (56 percent). A sharp drop in the participation rates at ages 25-29 and a further drop at ages 30-34 are related to the period of marriage and childbirth. The labor force participation rate decreases as women leave jobs for reasons of marriage and child rearing, and the rate of participation increases as women in late thirties return to the labor force. By the time Japanese women reach their early forties, 70 percent of all women in that age group have reentered the labor force. A large part of the increase of middle-aged women in the paid labor force has been due to the increase in part-time employment. The proportion

of part-time workers by age group indicates that the percentage raises form the 25-29 age group (23 percent) to the 40-44 age group (40.3 percent). It remains relatively high in the older age groups for women.

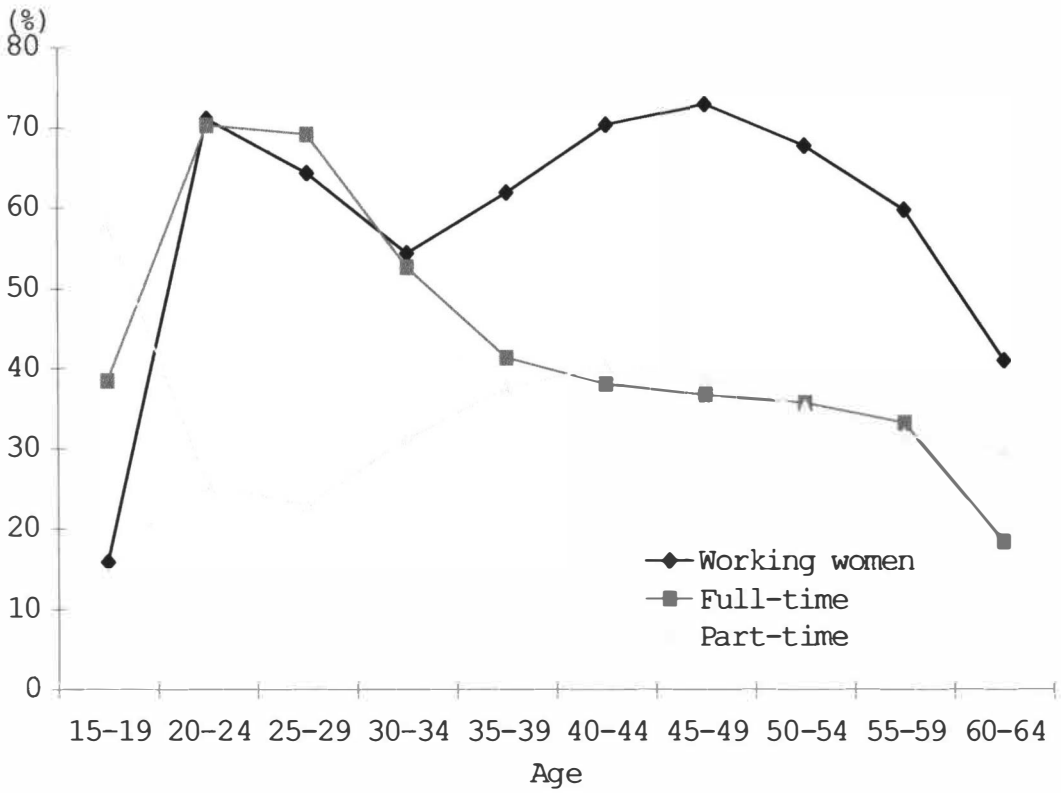

Figure 1. Proportion of Working Women and Female Full-time and Part-time Employees by Age Group

Women's Economic Activities and Educational Level

Table 2 shows labor force participation of married women across educational groups. Among women in the

Table 2

Labor Force Participation Rates Among Married Women by Education

	Female (%)			
Age	University	Junior/ technological college	High school	Junior high school
25-29	52.4	42.2	38.7	36.0
40-44	62.7	64.2	70.8	70.2
All age	55.3	51.4	54.4	46.1

younger cohort, the highly educated women are more likely to keep working as paid employees, while less educated women are more likely to withdraw from the labor market when they marry. Labor participation rates for married women aged 25-29 with university, junior college, high school and junior high school degrees are 52.4, 42.2, 38.7 and 36.0 percent, respectively. In contrast, in their early forties married women with university degree are less likely to be in the labor force, compared to those with lower education. Among married women in their early forties, 63 percent of university graduates are in the labor force, compared to 64.2 percent of junior college graduate, 70.8 percent of junior high school graduates, and 70.2 percent of high school graduates.

Table 3 shows employment status of married women by educational level. Among married women who are in the

Table 3

Employment Status Distribution Among Married Women by Education

	Female (%)			
Employment status	University	Junior/ technological college	High school	Junior high school
Self-employed	9.7	7.6	7.7	10.8
Family workers	7.6	9.4	16.2	30.1
Full-time employees	56.2	46.8	35.0	25.3
Part-time employees	23.4	34.4	41.1	32.6
Other	3.1	1.8	1.1	1.2
Total	100.0	100.0	100.0	100.0

paid labor force, women with higher educational background show a less conventional employment pattern even after marriage, compared to those with lower educational background. Highly educated women are more likely to keep working on a full-time basis and less likely to work as part-time workers or family workers. Contrary, less educated women are more likely to be found in home employment and part-time employment.

Occupation

Occupational Distribution of Workers in the 24-29 Cohort

The occupational distribution of employees (Table 4) shows clearly the differentiation in the labor market between male and female employees. The largest number of women are engaged in clerical work, accounting for 45.4 percent of women in the younger cohort. This is followed by professional and technical occupation (20.9 percent). Men are more likely than women to have entered production processes (37.4 percent) or sales occupations (18 percent).

It should be noted that the relatively large proportion of women in the category of professional and technical workers is due to the fact that the majority of professional women are concentrated in sectors such as health service and teaching. These two occupations together constitute 75 percent of all women in the professional and technical category. Only 4.7 percent of women in the category of professional and technical workers are engineers and technicians, compared to 46.2 percent for men (Management and Coordination Agency,

Table 4

Occupational Distribution of Male and Female Workers by Age Group

Occupation	25-29 (%) Male	25-29 (%) Female	40-44 (%) Male	40-44 (%) Female
(1) Professional, technical workers	15.9	20.9	14.8	16.5
(2) Managers, officials	0.5	0.1	4.3	0.5
(3) Clerical and related workers	14.1	45.4	16.2	30.5
(4) Sales workers	18.0	11.0	16.2	11.2
(5) Service workers	4.8	8.3	3.8	11.8
(6) Protective service	1.9	0.3	2.8	0.1
(7) Agricultural, forestry, fisheries workers	1.1	0.6	2.7	3.2
(8) Transport, communications	5.4	0.7	5.5	0.6
(9) Craftsmen, mining, production process, construction, laborers	37.4	11.9	33.0	25.0
(10) Workers not classifiable by occupation	0.9	0.8	0.7	0.6
Total	100.0	100.0	100.0	100.0

1997).

Occupational Distribution of Workers in the 40-44 Cohort

The change in the share of occupational categories between the two age groups (Table 5) shows lower degree of sex differentiation among older workers. The concentration of men and women in certain occupations are reduced among workers during their middle age, except in managerial and service occupations. The sex composition of the managerial occupation shows a predominance of men; women represent a mere 8.2 percent. While over two-thirds of the service workers are women in the older cohort. These changes in occupational distribution by age cohort reflect women's withdrawal from the labor market especially women in clerical occupation and reentry as part-time workers in sales, service and production process occupations.

Occupational Distribution of Workers in the 25-29 Cohort by Education

The level of education has a significant impact on the occupational distribution of graduates, especially

Table 5

Female Share of Occupational Distribution by Age Group

Occupation	Female share (%) 25-29	40-44
(1) Professional, technical workers	47.1	44.4
(2) Managers, officials	13.0	8.2
(3) Clerical and related workers	68.5	57.5
(4) Sales workers	29.3	33.2
(5) Service workers	53.6	68.7
(6) Protective service	8.8	2.6
(7) Agricultural, forestry, fisheries workers	27.3	45.7
(8) Transport, communications	8.1	7.7
(9) Craftsmen, mining, production process, construction, laborers	17.7	35.2

for men. Table 6 shows occupational distribution of male workers by major occupational groups. Men who are university graduates enter professional and technical

Table 6

Occupational Distribution of Male Workers in the 25-29 Cohort by Education

Occupation	Male (%)			
	University	Junior/ technological college	High school	Junior high school
(1) Professional, technical	29.4	23.2	6.0	0.7
(2) Managers, officials	0.6	0.4	0.5	0.3
(3) Clerical and related workers	22.9	13.3	9.8	1.3
(4) Sales workers	28.0	13.5	13.7	5.8
(5) Service workers	2.0	6.8	5.7	9.6
(6) Protective service	1.3	1.0	2.7	1.0
(7) Agricultural, forestry fisheries workers	0.4	1.4	1.3	2.6
(8) Transport, communications	0.8	2.9	8.1	15.1
(9) Craftsmen, mining, production process, construction, laborers	13.7	37.0	51.2	62.2
(10) Workers not classifiable by occupation	0.9	0.5	1.0	1.4
Total	100.0	100.0	100.0	100.0

(29.4 percent), clerical (22.9 percent), and sales (28 percent) occupations. Usually, clerical and sales jobs are stepping-stones to managerial positions for male university graduates. Compared to university graduates, graduates with lower education are concentrated in production process occupations. More than half of high school and junior high school graduates are engaged in jobs related to the production process.

The most common occupations followed by women who have a university or junior college education are clerical and professional and technical occupations (Table 7). The less educated women are much more likely to be employed in service, sales and production process occupations.

Occupational Distribution of Workers in the 40-44 Cohort by Education

The occupational distribution of men across educational groups (Table 8) shows little change between the two cohorts, except for the increase in management related occupations. About 68 percent of this occupational group are university graduates and those with other lower educational backgrounds have very little

Table 7

Occupational Distribution of Female Workers in the 25-29 Cohort by Education

Occupation	Female (%)			
	Uni-versity	Junior/ techno-logical college	High school	Junior high school
(1) Professional, technical	38.5	29.2	7.7	3.9
(2) Managers, officials	0.2	0.1	0.0	1.0
(3) Clerical and related workers	43.7	48.3	45.8	17.3
(4) Sales workers	9.6	8.9	13.4	13.5
(5) Service workers	2.9	5.7	11.3	26.0
(6) Protective service	0.4	0.2	0.3	0.0
(7) Agricultural, forestry fisheries workers	0.2	0.3	1.0	1.0
(8) Transport, communications	0.4	0.4	1.0	1.9
(9) Craftsmen, mining, production process, construction, laborers	3.7	6.1	18.7	33.7
(10) Workers not classifiable by occupation	0.4	0.8	0.8	1.7
Total	100.0	100.0	100.0	100.0

Table 8

Occupational Distribution of Male Workers in the 40-44 Cohort by Education

Occupation	Male (%) University	Junior/ technological college	High school	Junior high school
(1) Professional, technical	28.7	25.4	6.6	1.3
(2) Managers, officials	7.0	4.4	2.9	1.5
(3) Clerical and related workers	24.2	13.7	14.2	2.1
(4) Sales workers	22.7	13.3	14.7	4.4
(5) Service workers	1.5	4.4	4.7	7.0
(6) Protective service	2.2	1.6	3.8	1.5
(7) Agricultural, forestry fisheries workers	0.9	4.0	3.3	5.1
(8) Transport, communications	1.1	4.0	7.2	12.2
(9) Craftsmen, mining, production process, construction, laborers	11.2	27.4	42.0	64.3
(10) Workers not classifiable by occupation	0.5	1.8	0.6	0.6
Total	100.0	100.0	100.0	100.0

opportunity for entering the managerial occupations (Management and Coordination Agency, 1997).

For women, occupational distribution across educational groups diversifies as they age. There is an increase in the proportion of production process workers and decline in the proportion of clerical workers among all educational groups (Table 9). University graduates are least likely to be in the categories of service occupation and production process occupation. They are less likely to quit jobs if they have a professional occupation, but many women with university education quit if they have a clerical occupation as an entry job. Female university graduates in clerical and sales occupations are largely discouraged from seeking long-term careers (Tanaka, 1995) and tend to withdraw from work upon marriage and childbirth.

Firm Size

Distribution of Workers in the 25-29 Cohort by Firm Size

Table 10 shows the distribution of male and female employees by firm size and age group. Among workers in the younger cohort, there is no significant difference in

Table 9

Occupational Distribution of Female Workers in the 40-44 Cohort by Education

Occupation	Female (%) University	Junior/ technological college	High school	Junior high school
(1) Professional, technical	52.4	31.6	6.4	4.2
(2) Managers, officials	1.0	0.8	0.4	0.0
(3) Clerical and related workers	29.6	30.7	34.1	10.1
(4) Sales workers	6.1	10.3	12.9	9.0
(5) Service workers	3.4	9.0	13.2	18.4
(6) Protective service	0.0	0.2	0.1	0.0
(7) Agricultural, forestry fisheries workers	1.3	1.8	3.8	5.6
(8) Transport, communications	0.3	0.5	0.7	0.7
(9) Craftsmen, mining, production process, construction, laborers	5.4	14.3	28.0	51.0
(10) Workers not classifiable by occupation	0.5	0.8	0.4	1.0
Total	100.0	100.0	100.0	100.0

the distribution of men and women by size of firm. The distribution across firms by size is almost identical for men and women, with 31-32 percent in the large firm, 24-25 percent in the medium-sized firm, and 26 percent in the small firm. However, in their early forties, male and female workers are distributed radically differently in the large firms.

Table 10

Distribution of Male and Female Workers by Firm Size and Age Group

	Male (%)			Female (%)		
Age	10-99	100-999	1000+	10-99	100-999	1000+
25-29	26.3	24.2	31.7	25.5	25.3	30.7
40-44	23.2	20.0	31.9	26.6	17.5	22.9

Distribution of Workers in the 40-44 Cohort by Firm Size

In the older cohort, a majority of male workers is able to maintain the position in the large and medium-sized firms. However, in their early forties, more women are concentrated in the small firms. Twenty seven percent of women are employed in the small firms, compared to 23 percent and 17 percent in the large and medium-sized firms.

The Distribution of Workers in the 25-29 Cohort by Firm Size and Education

Table 11 shows the distribution of younger workers by size of firm and education. Higher educational attainments appear to increase the probability of being employed in a large firm for both men and women. Among university graduates, a majority of workers are concentrated in the large firms. The percentages of university graduates who are employed in the large firms is 51 percent for men and 48 percent for women. In contrast, majority of younger workers with junior high school education are concentrated in the small firms. Only 5.5 percent of male workers and 7.7 percent of female workers with junior high school education are employed in the large firms.

The Distribution of Workers in the 40-44 Cohort by Firm Size and Education

Table 12 displays the distribution of older workers across firm size by different levels of education. Like younger workers, older workers with higher education are more concentrated in the large firms. The percentage of older male workers with university degrees in the large

Table 11

Distribution of Male and Female Workers in the 25-29 Cohort by Firm Size and Education

	25-29 (%)							
	Male				Female			
Firm size	University	Junior/ technological college	High school	Junior high school	University	Junior/ technological college	High school	Junior high school
10-99	15.3	29.1	31.0	43.9	17.5	24.7	29.1	36.5
100-999	25.2	29.8	22.9	10.9	23.9	26.1	25.8	18.3
1000+	51.4	22.7	23.9	5.5	47.7	34.2	22.6	7.7

Table 12

Distribution of Male and Female Workers in the 40-44 Cohort by Firm Size and Education

	40-44 (%)							
	Male				Female			
Firm size	University	Junior/ technological college	High school	Junior high school	University	Junior/ technological college	High school	Junior high school
10-99	17.6	23.4	34.8	24.2	16.0	23.0	28.4	34.0
100-999	23.1	21.4	13.3	19.2	10.2	15.4	18.8	20.1
1000+	42.0	27.0	8.7	31.0	40.8	30.5	19.1	9.0

firms is 42 percent for men and 40.8 percent for women. Interestingly, the percentage of older men who are employed in the large firms is higher among junior high school graduates (31 percent) than high school (8.7 percent) and junior or technological college graduates (27 percent). Only 9 percent of older women with junior high school education are employed in the large firms.

Summary

This chapter investigated the gender difference in the mobility patterns over the life cycle of men and women. Men and women's career paths diverge as they move through their life cycle. Majority of men and women begin their work in large firms and as full-time workers. In their early forties, men show a higher rate of persistence than women in these statuses, while women are more likely to move from larger firms to smaller firms and full-time employment to part-time employment. This reflects the entrance barriers to internal labor markets in large firms for women and the employment practice of large firms to employ younger rather than older women. The sharp drop in employment participation rate for

Japanese women in their late twenties and the dramatic increase in the late thirties suggests that women's employment activity is closely related to marriage and child rearing responsibilities. The results suggest that education are not important determinants for a married woman to continue her work throughout marriage or childbirth. Many women leave paid work regardless of educational background and return as part-time workers or family workers. The results are consistent with previous literature suggesting that more-educated women continue to work even after marriage, yet, once they withdraw from the labor market, they are less likely to return to work (Tanaka, 1995). Opportunities for a woman in her forties who has once withdrawn from the labor market to return to a full-time job with prospects for career advancement are extremely limited, even if she has a university degree.

There is also evidence that a greater proportion of the younger cohorts of female university graduates have higher labor force participation levels. University graduates who remain in the paid labor force are more likely than the graduates of other educational groups of women to continue in full-time employment and much more

likely to be employed in higher standing occupations and larger firms. Women with lower levels of educational attainment tend to be the most disadvantaged in resuming their careers, while university graduates have slightly better opportunities of reentering the labor market as full-time employees.

CHAPTER VII

WAGE DIFFERENTIALS

This section focuses on wage structures and the distribution of earnings among regular employees. First, I examine the important factors in the determination of wage levels of regular employees in Japanese labor market. The main variables examined here are education, size of firm, industry and occupation. Age-earning profiles of male and female regular employees are also analyzed to see the wage growth ratio by age. Second, gender wage differentials of regular full-time employees are examined. The variables investigated in this section are education, size of firm, occupation, age and length of service. Finally, I will discuss how Japanese industrial practices, such as the seniority-based wage system, the lifetime employment practice and the internal promotion rule affect the gender wage differentials.

Determinants of Wages

Wage Differentials by Education

Table 13 shows wage differentials of regular employees by educational group. Male university graduates earn 21-24 percent higher than male graduates with lower educational backgrounds. Education has an almost negligible effect on overall wage differentials among male workers with junior college, high school and junior high school graduates.

Table 13

Wage Differentials of Regular Employees by Education

Education	Male	Female
University	100.0	100.0
Junior/technological college	76.3	84.3
High school	78.6	75.7
Junior high school	75.8	66.0

The wage differentials by educational group show wider dispersion among female employees. Those who completed high school receive earnings 9.7 percent higher, compared to workers with junior high school educations. Two years of junior college increases a

woman's earnings by an additional 8.6 percent and woman with a four-year university education receive earnings 15.7 percent higher than those of junior college graduates.

Age-earning Profiles of Male Workers by Education

Figure 2 displays age-earning profiles of male employees by educational group. The profiles display

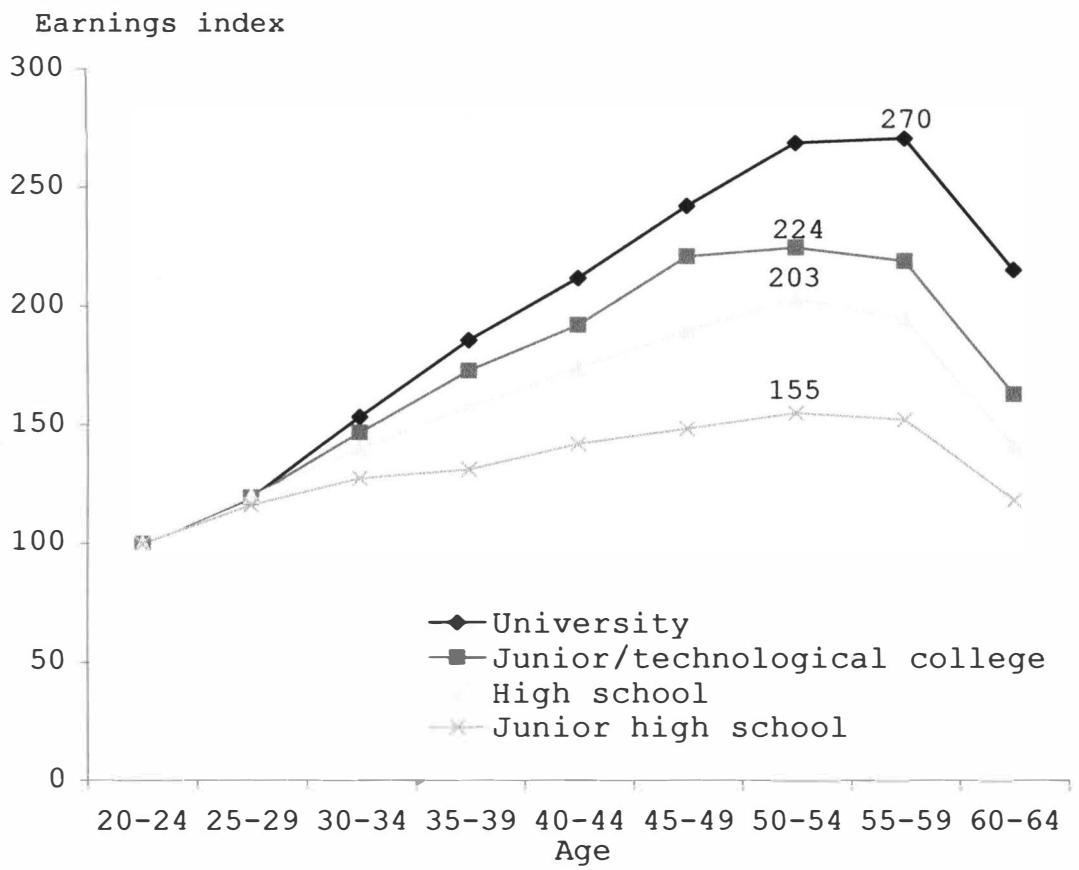

Figure 2. Age-earning Profiles of Male Regular Employees by Education

widening earnings differentials by level of education with increasing age. The peak index occurs among male workers aged 55-59 for university graduates. Male university graduates in the 55-59 age cohort earn 2.7 times the pay of those in the 20-24 cohort. The average earnings for junior college, high school and junior high school graduates increase up to the age of 50-54. The age-earnings ratios of junior high school, high school and junior college graduates in the 50-54 cohort relative to the 20-24 cohort are 2.3, 2.0, and 1.6, respectively.

Age-earning Profiles of Female Workers by Education

Earning profiles of female graduates (Figure 3) display divergent earnings growth across educational groups. Except in the case of university graduates, the age earning profiles of female workers are considered flat compared to those of male workers. In contrast, the age earning profiles of female university graduates appear to rise steadily up to the 60-64 age group. The average earnings of university graduates in ages 60-64 is 2.5 times the pay of those in 20-24 age group. The highest average earnings for junior college, high school

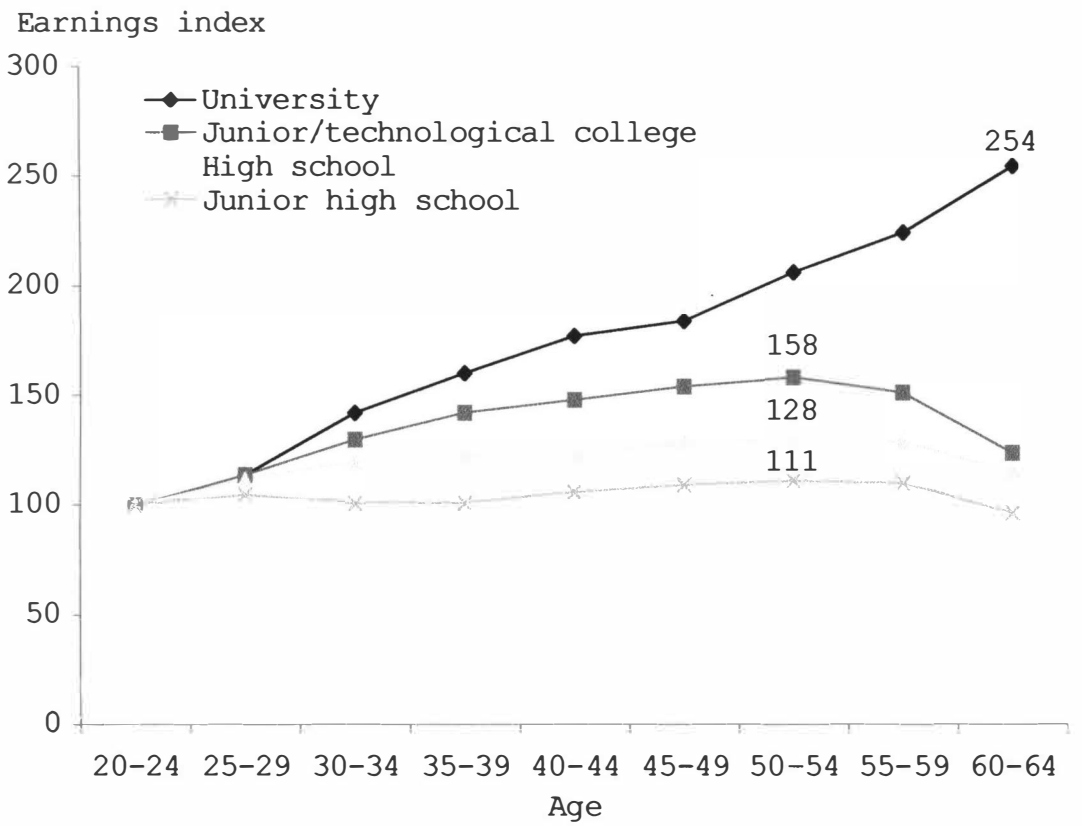

Figure 3. Age-earning Profiles of Female Regular Employees by Education

and junior high school graduates are received by those in the 50-54 age group. The age-earnings ratios of junior high school, high school and junior college graduates in the 50-54 cohort relative to the 20-24 cohort are 1.6, 1.3, and 1.1, respectively.

Wage Differentials by Firm Size

The average wages of male employees in medium-sized

firms and small firms are 84 percent and 77.2 percent of those in large firms (Table 14). The ratios of earning differentials by firm size are similar for male and female workers, however, overall earnings dispersion is relatively small among female workers. Female workers in medium-sized firms and small firms earn 89.7 percent and 82.2 percent of those in large firms.

Table 14

Wage Differentials of Regular Employees by Firm Size

Firm Size	Male	Female
Large(1000+)	100.0	100.0
Medium(100-999)	84.0	89.7
Small(10-99)	77.2	82.2

Age-earning Profiles of Male Workers by Firm Size

The average wage levels of male employees appears to rise steadily until age 50-54 for male employees in all categories (Figure 4). The average earnings of male workers aged 50-54 in large firms, medium-sized firms, and small firms are 2.5, 2.1 and 1.8 times the pay of those aged 20-24.

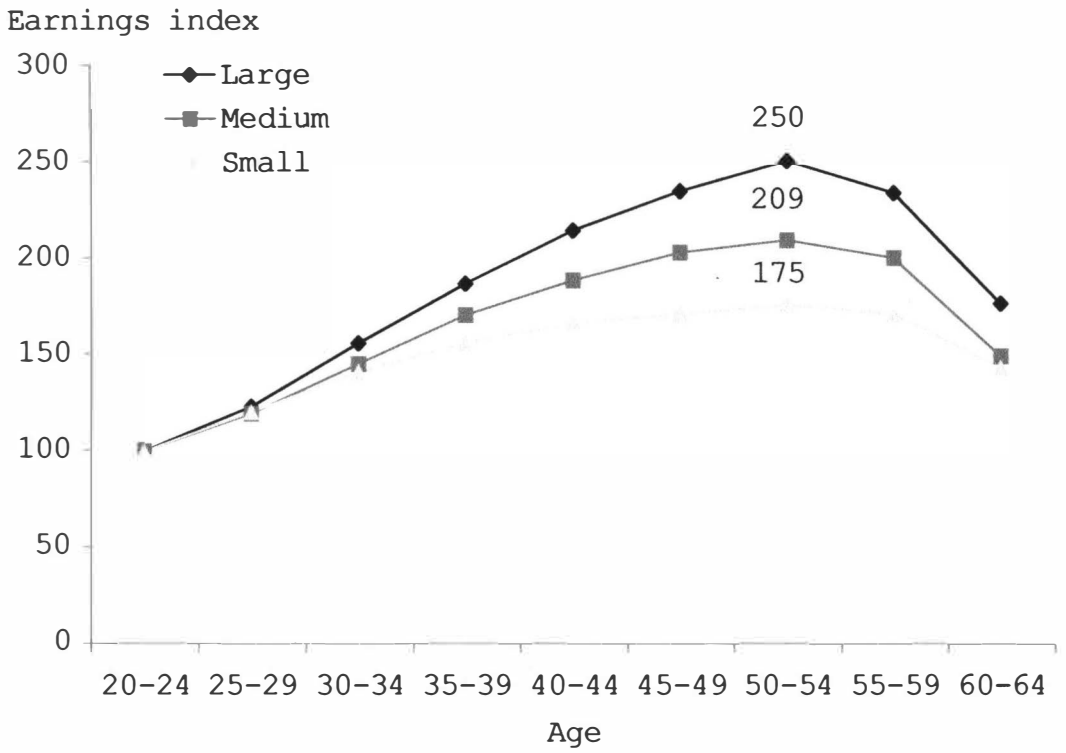

Figure 4. Age-earning Profiles of Male Regular Employees by Firm Size

Age-earning Profiles of Female Workers by Firm Size

In the case of female employees, highest wages in large firms are received by those in their 45-49 age groups (Figure 5). The average earnings of workers in the 45-49 age groups relative to those in the 20-24 group are 1.5 in large firms. In contrast, the average wages of female workers in small and medium-sized firms are highest among those in the 35-39 age group. Age has

negative effects for female employees in small and medium-sized firms after they reach their forties.

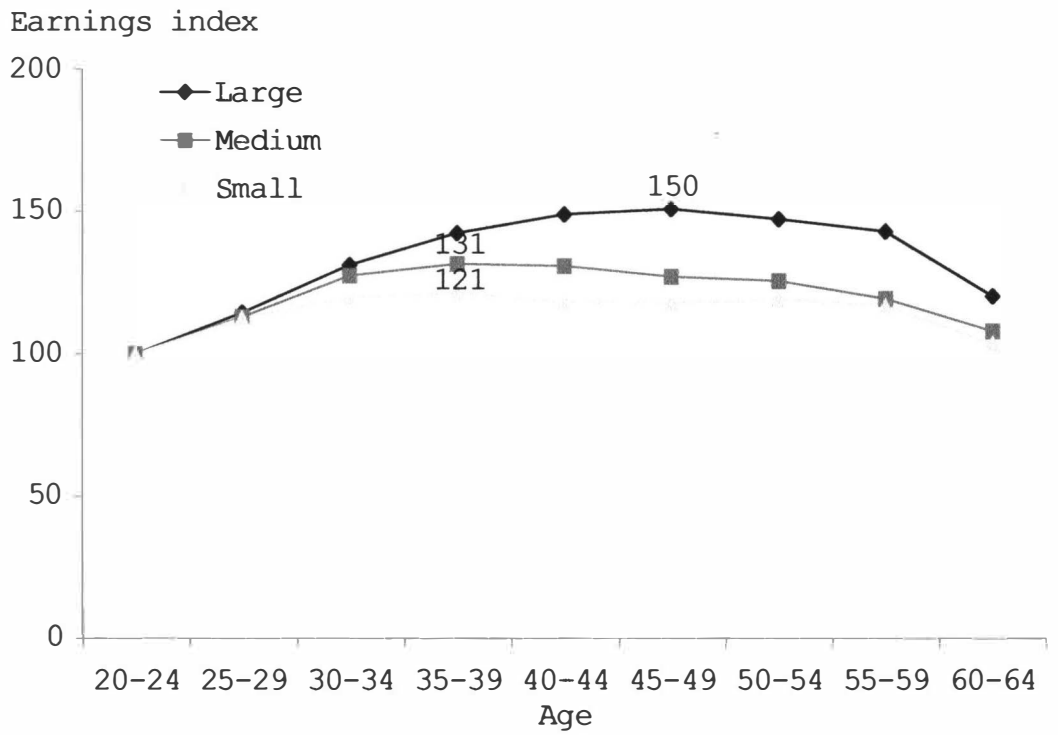

Figure 5. Age-earning Profiles of Female Regular Employees by Firm Size

Wage Differentials by Industry

Table 15 shows earning ratios of regular employees by industry compared to the average of all industry earnings. The highest wages for men are in the finance and insurance industries and male workers in those industries earn 28 percent more than the average of all

Table 15

Wage Differentials of Regular Employees by Industry

Industry	Male	Female
(1) Mining	87.8	91.2
(2) Construction	94.4	92.6
(3) Manufacturing	91.6	84.2
(4) Electricity, gas, heat supply, and water	114.2	122.1
(5) Transport, communications	86.3	102.0
(6) Wholesale, retail trade, eating and drinking place	95.0	95.1
(7) Finance, insurance	128.2	106.3
(8) Real estate	106.4	101.7
(9) Service	96.0	104.8

industry earnings. Conversely, the lowest wage payment is made in the transport and communications industries and male workers in those industries earn 14 percent below the average of all industries.

For women, the highest average wage is earned in the

electricity, gas, heating and water supply industry and female workers in those industries earn 22 percent above the overall average for females. On the other hand, the lowest wage is earned in manufacturing industries and average wage of female workers in those industries is 16 percent below the average. Thus, we observe a wide difference in wage payments by industries.

It was found that a greater part of the large wage differentials by industries could be explained by the difference in size of firm. For example, wage gaps between highest wage payment and lowest wage payment by industries are decreased by 12.6 percent for male and 10.4 percent for female employees in large firms (see Appendix-B, Table 24).

Wage Differentials by Occupation

Wage differentials by occupation examines two types of workers: "blue-collar" and "white-collar" workers. Both male and female white-collar workers receive higher wage earnings than blue-collar workers. Male white-collar workers earn average 37 percent more than that of male blue-collar workers and the average earnings

of female white-collar workers is 30 percent higher than that of female blue-collar workers (Table 16).

Table 16

Wage Differentials of Regular Employees by Type of Workers

Type of Workers	Male	Female
Blue-coller	100.0	100.0
White-coller	137.0	130.2

Age-earning Profiles of Male and Female Workers by Type of Workers

Figure 8 shows age-earning profiles of white-collar workers and blue-collar workers. The age-earning profile of male white-collar workers increases very sharply as they age. The highest average earnings for both blue-collar workers and white-collar workers are received by those in the 50-54 age group. The average earnings of male blue-collar workers and white-collar workers age 50-54 is 1.8 and 2.5 times the pay of workers aged 20-24. Female workers have a less steep earnings profile, especially among blue-collar workers. The earnings of female white-collar workers slowly increase with age, while the earnings profile of female blue-collar workers

displays a slight drop for the older workers. The peak wage index occurs in the 30-34 age group for blue-collar workers and 50-54 age group for white-collar workers. Female blue-collar workers aged 30-34 earn an average only 1.1 times, while female white-collar workers aged 50-54 earn an average 1.4 times the pay of those aged 20-24.

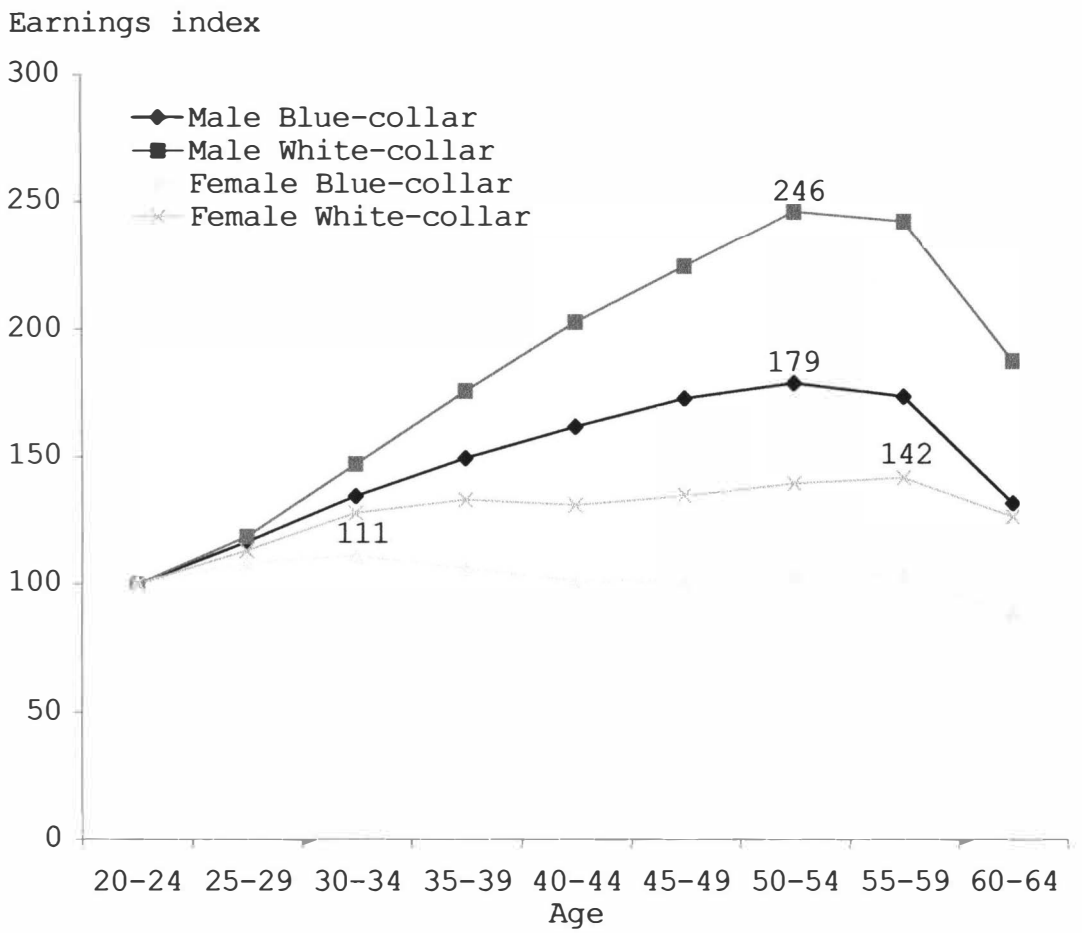

Figure 6. Age-earning Profiles of Male and Female Regular Employees by Type of Workers

Wage Differentials by Rank of Workers

It would be useful to extend the above analysis by comparing wage differentials within the white-collar group between office staff and managers. The BSWS collects the data on five hierarchical levels of supervisory workers in firms employing 100 or more workers. I define management workers to be employees in the two higher-level supervisory positions: directors (bucho) and division heads (kacho). The lower level supervisory workers such as section chiefs and foremen are treated as clerical workers. Due to the small number of cases for women in the position of directors, information on this category of female worker is missing from the data.

Table 17 shows the average wage gap between management workers and non-managerial workers. The wage differentials between director and non-managerial workers is 83.8 percent. In contrast, male division heads managers earn approximately 50 percent higher than the average male non-managerial workers. The wage differentials between division heads and non-managerial

workers is wider among female workers. The average wage of female division heads manager is 82 percent higher than that of the non-managerial workers.

Table 17

Wage Differentials Between Manegerial Workers and Non-manegerial Workers

Rank of worker	Male	Female
Non-managerial worker	100.0	100.0
Directors (bucho)	183.8	-
Division heads (kacho)	149.5	182.0

Gender Wage Differentials

Change in Overall Gender Wage Differentials

Previous studies (Tachibanaki and Morikawa, 1992) have confirmed that gender was the single most important variable determining wage differentials in the Japanese labor market. Table 18 shows a change in gender wage differentials between 1976-1998. Starting from 59 percent in 1976 they went up by one percent from 1977-1979. The difference between the salaries of men and women had decreased from 1980 to 1984 by one percent to the 1979 stage. By 1998 it had gradually increased to 64 percent. The trend toward greater disparity in the

Table 18

Change in Average Male-female Earnings Gap, 1976-98

Years	(Male=100) Female
1976	58.8
1977	60.0
1978	60.0
1979	60.0
1980	58.9
1981	58.9
1982	58.6
1983	58.7
1984	58.6
1985	59.6
1986	59.7
1987	60.5
1988	60.5
1989	60.2
1990	60.2
1991	60.7
1992	61.5
1993	61.6
1994	62.0
1995	62.5
1996	62.8
1997	63.1
1998	63.9

earnings of Japanese men and women seems to have been reversed during the last half of the 1980s. The overall gender inequality trends have shown little sign of major improvement despite the continued expansion of women's labor market activities and the improvement of their education.

Breakdowns of the Gender Differentials

Table 19 presents average earnings of women relative to men's earnings by education, firm size, type of workers and industry. Overall earning ratios of female university, junior college, high school and junior high school graduates are 68.4, 75.5, 65.9, and 59.5, respectively compared to men. These indices indicate that the differences in educational levels does not seem to have a significant effect on gender wage differentials. The same situation holds for the gender difference by firm size and type of workers. As for the gender wage differentials by industry, differentials are wider in highly paid industries, such as finance and insurance industries, and differentials are smaller in low-paid industries, such as transport and communication industries.

Starting Salary

Table 20 shows the starting salary of new graduates by educational level, firm size and industry. Among those who graduated from school and entered the work

Table 19

Gender Wage Differentials of Regular Employees

Variable	(Male=100) Female
Education	
University	68.4
Junior/technological college	75.5
High school	65.9
Junior high school	59.5
Firm size	
Large	62.6
Medium	66.8
Small	66.6
Industry	
(1)Mining	65.2
(2)Construction	61.5
(3)Manufacturing	57.7
(4)Electricity,gas, heat supply,and water	67.1
(5)Transport, communications	74.2
(6)Wholesale,retail trade, eating and drinking place	62.8
(7)Finance,insurance	52.0
(8)Real estate	60.0
(9)Service	68.5
Type of Workers	
Blue-coller workers	60.1
White-coller workers	57.1

Table 20

Wage Differentials in Starting Salaries
by Education, Firm Size, and Industry

(university=100%)	Male			Female		
Firm Size Industry	Junior/ technological college	High school	Junior high school	Junior/ technological college	High school	Junior high school
10-99	87.4	79.8	77.5	86.2	81.4	78.7
100-999	86.0	80.4	74.2	86.6	79.0	75.0
1000+	87.1	80.0	72.3	84.5	75.4	68.2
(1)Mining	81.1	75.3	-	79.7	68.6	-
(2)Construction	90.2	84.5	73.4	89.4	79.5	74.8
(3)Manufacturing	86.3	79.6	74.6	85.1	77.3	71.1
(4)Electricity,gas, heat supply,and water	86.8	80.5	80.5	84.3	80.7	82.0
(5)Transport, communications	88.9	81.1	78.5	87.5	80.6	75.3
(6)Wholesale,retaile trade, eating and drinking place	86.0	78.4	72.6	86.1	79.9	75.4
(7)Finance,insurance	98.8	76.7	-	87.1	79.7	-
(8)Real estate	88.4	70.0	-	85.8	75.4	58.1
(9)Service	84.8	77.3	61.0	85.3	75.4	75.9

force as full-time employees in 1998, men earned an average at 167,200 yen, whereas women earned 159,700 yen per month. Men entering the labor market started out on an average 7,500 yen more than women on a monthly basis. Thus, women earned 95.5 percent relative to men. The gender wage differentials of entry earnings are somewhat small compared to overall differentials of full-time employees. The only factor that affects men and women's starting wages is educational level. The level of education appears to be positively related to the level of earnings for both male and female employees in the earlier stage of their employment. However, higher level of education does not increase women's average earnings relative to men (Table 21). Size of the firms does not significantly affect starting wages and neither does the type of industry.

Age-earning Profiles

Variation in earnings by age increases around age 30 when some workers enter management. Their pay tends to increase more rapidly. By the time they reach 50, the average male employees earn 2.1 times their entry pay

Table 21

Gender Wage Differentials in Starting Salaries
by Education, Firm Size, and Industry

(Male=100)	Female			
Size of firm Industry	Uni- versity	Unior/ techno- logical college	High school	Junior high school
10-99	94.7	93.4	96.6	96.2
100-999	96.8	97.5	95.0	97.9
1000+	96.6	93.7	91.0	91.1
(1)Mining	94.2	92.6	85.7	-
(2)Construction	92.7	91.9	87.2	94.4
(3)Manufacturing	97.4	96.0	94.5	92.9
(4)Electricity,gas, heat supply,and water	99.6	96.7	99.8	101.4
(5)Transpoort, communications	97.2	95.6	96.5	93.3
(6)Wholesale,retail trade, eating and drinking place	97.2	97.3	99.1	101.1
(7)Finance,insurance	94.5	83.3	98.2	-
(8)Real estate	88.6	86.0	95.5	-
(9)Service	96.5	97.1	94.1	120.0

(Figure 7). Age shows an increasing effect on wage differentials for men except for the oldest groups (55-64). Most Japanese companies set a general retirement age of fifty-five. Therefore, these two groups have

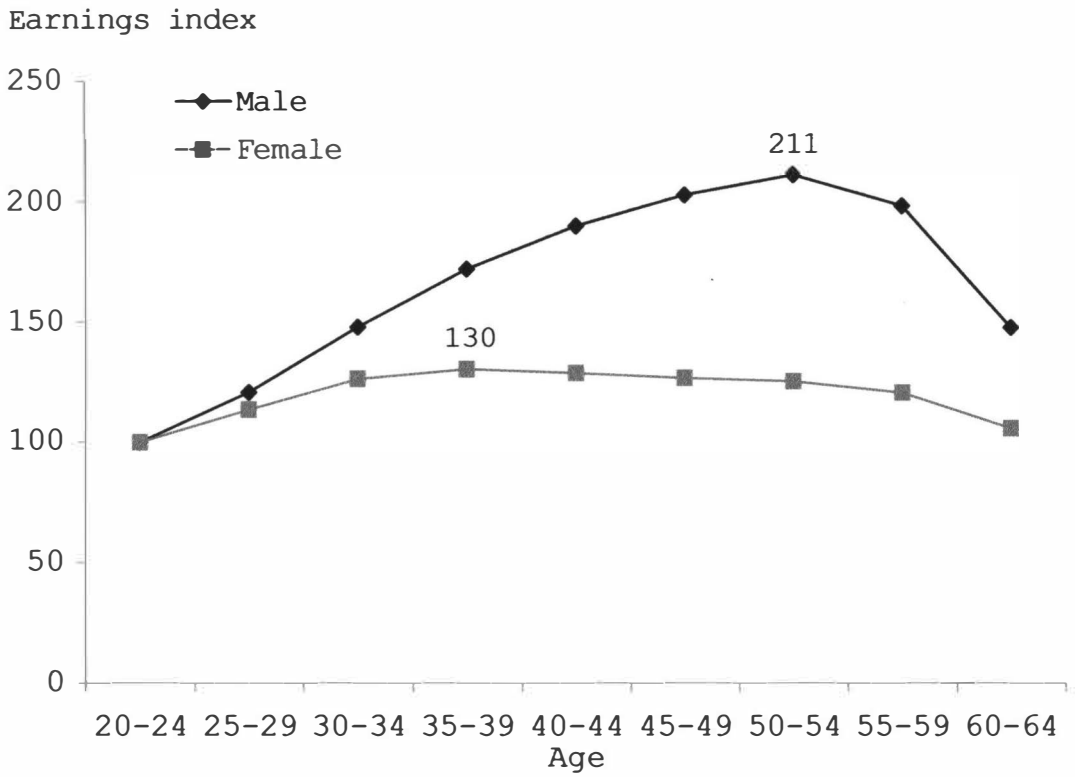

Figure 7. Age-earning Profiles of Male and Female Regular Employees

shown a downward effect on wages. In contrast, the average earnings of female employees no longer rise after the 35-39 age group. The highest average earnings received by female employees is only 1.3 times their entry pay. Consequently, for middle-aged workers in Japan the differential by sex becomes especially wide. The earning ratios of female workers relative to male workers display a widening dispersion as they age. For

example, female workers aged 50-54 earn only 53.3 percent the pay of male workers (Table 22).

Table 22

Gender Wage Differentials of Regular Employees by Age Group

Age	(Male=100) Female
18-19	91.6
20-24	90.6
25-29	85.3
30-34	77.4
35-39	68.8
40-44	60.3
45-49	56.0
50-54	53.3
55-59	54.5
60-64	65.2
Total	63.9

Length of service

This section examines the wage differentials of standard employees to see what happens if length of service and education are controlled for males and females. The term standard employees refers to those who are employed by companies immediately after graduating from school and then continue to work for the same companies. Figures 8 and 9 show earnings profiles of standard employees. Male workers with university degrees

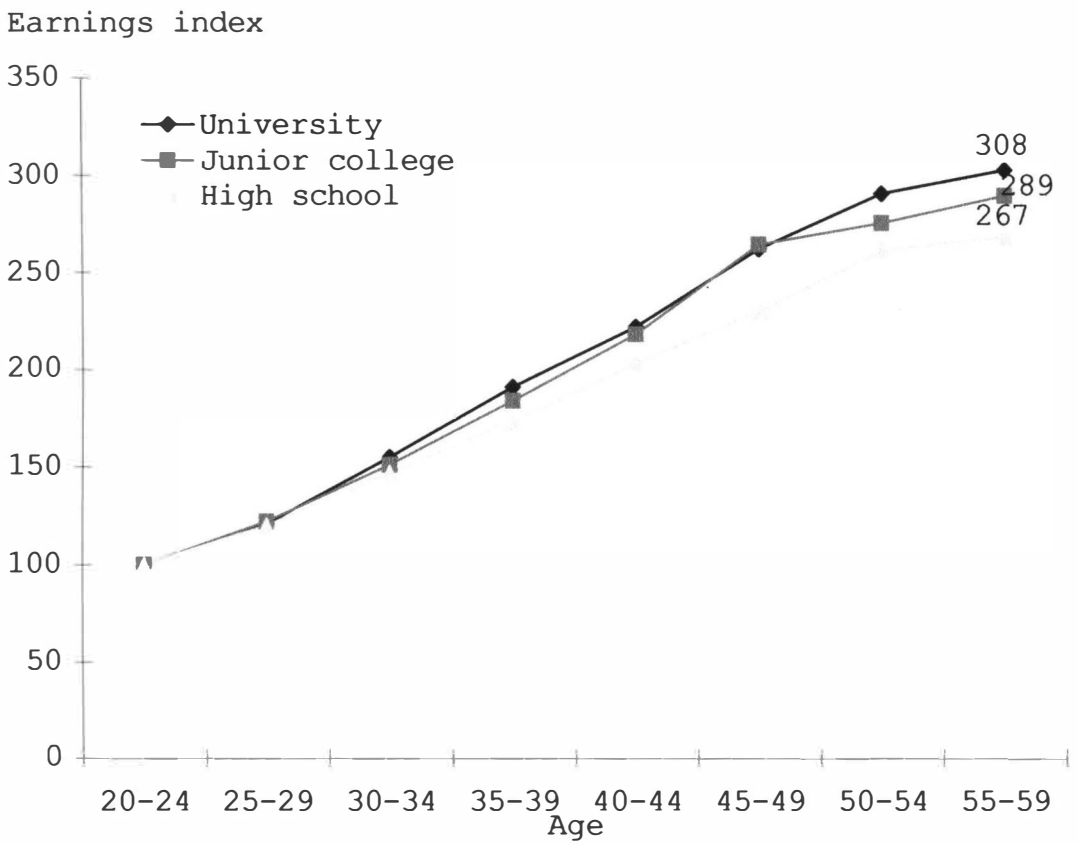

Figure 8. Age-earning Profiles of Male Standard Employees by Education

are typically on a career ladder that increases their earnings 2.2 times over 20 years. Female workers with university degrees have a less steep earnings profile and their earnings potentially increase 2.0 times over 20 years if they do not leave the firm. Wage Differentials of standard workers are relatively small, but still, gender wage differentials exist among workers with

similar educational level and seniority in the same firm (Table 23).

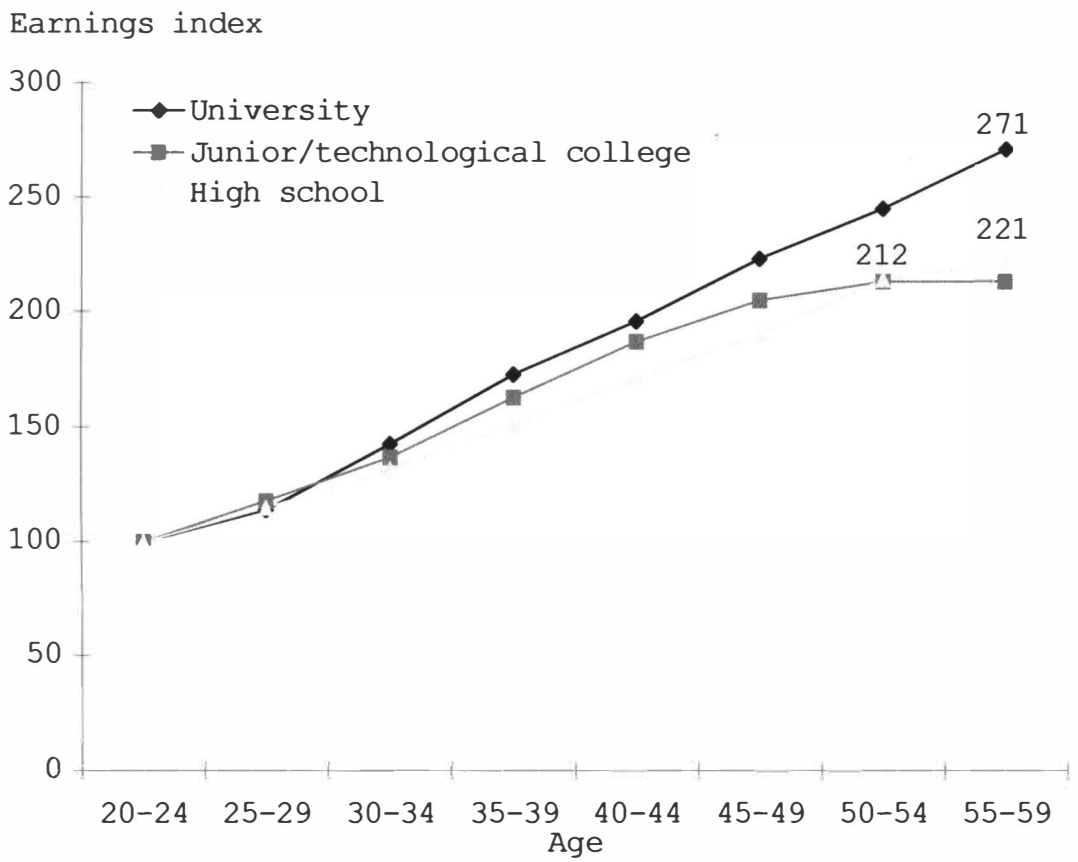

Figure 9. Age-earning Profiles of Female Standard Employees by Education

Table 23

Gender Wage Differentials of Standard Employees by Education

Education	(Male=100) Female
University	85.0
Junior/technological college	77.5
High school	77.0

Summary

This chapter investigated the issue of wage determination and gender wage differentials. This section presents the results which contribute to the understanding of wage determination and wage differentials in Japan in relation to the labor market mechanisms.

The wage level of a worker is determined by length of service, age, gender, firm seize and to lesser degree, education. Male workers have career ladders with steep age-earning profiles. The earnings of university graduates increase much more rapidly than do other employees with lower educational background. Education performs a screening role for promotion in the firms. In particular, earnings are differentiated by the position of workers to a large extent.

The difficulties facing Japanese women are the continuing reluctance of Japanese companies to promote women to managerial levels. Most managerial positions are still filled by men. The limited number of women who work in the category of managers and officials also

explains the wage gap between men and women. Among companies with 100 or more employees in 1997, only 7.8 percent of the section chiefs (kakaricho), 3.7 percent of division (kacho) and 2.2 percent of directors (bucho) were female (Management and Coordination Agency, 1997). Gender wage gap is wider in large firms. This is because large firms which have hierarchically structured internal job ladders tend not to hire women for the jobs linked to the higher positions which offer higher earnings. The job opportunities are more open to them in the smaller firms with less developed lob ladders.

A high proportion of Japanese women still withdraw from the labor market after marriage and for child rearing. Such an interrupted career pattern has a negative impact on women's wages and promotion where the seniority-based wages and continuous long-term service is an important criterion in skill formation and promotion in the large firms (Lam, 1992).

CHAPTER VIII

CONCLUSION

This study has investigated gender differences in wages and career paths over the life cycle of male and female employees in Japan. The employment practices affecting women in the labor market have been investigated. This chapter summarizes the findings of the study and discusses the future task of reducing wage differentials and improving working condition for men and women.

Discrimination in Wages

The results of this study confirm the prevailing discrimination against women in Japan. With regard to the gap in average wages between male and female regular workers (excluding part-time workers), the average wage paid to female workers was 63.9 percent of that paid to male workers in 1998. Particularly noteworthy is that the differential is smaller when workers are young and it increases as workers get older. For example in the 50-54

age group, women earn only 53.3 percent of what men earn. It was found that worker characteristics such as education, length of service, and age affect the male and female employees differently. The disparity in income between men and women workers is partly attributable to the fact that women have not been given an equal career opportunity with that of male employees. Since wage differentials by sex are mostly due to the market structure, changing workers' human capital would not greatly reduce the wage differentials. Equal employment opportunity and equal promotion are more important than the equal education.

Employment Opportunity Law

The revised Equal Employment Opportunity Law came into effect on April 1, 1999. A provision was enacted whereby the name of the company that was violating the act could be publicized. It is extremely difficult to increase the effectiveness of the prohibition of discrimination against women based on this mechanism alone. Stricter measures, including penalties against employers violating the law need to be enacted.

Discrimination by Employment Tracks

Since the promulgation of the EEOL, an increasing number of major firms have introduced a career-tracking system. The system offers employees a choice of career tracks at the point of entry: usually the managerial track and the clerical track. The clerical and managerial tracks are the formalizations of the career pattern that has become known in the United States as the "mommy track" (Schwartz, 1989). In Japan, critics of the multiple-track system argue that men are almost automatically hired or assigned to the management track while women have been employed for that track only exceptionally. The mommy track approach suggests instituting different career paths for women who expect to have children and those who do not. This approach allows just a few select women onto the career track of lifetime employment and seniority-based promotions. Such a limited approach is not really addressing the issue of full equality of employment opportunity for women.

In order to ensure that women are able to get an equitable return on their educational investment,

appropriate operation of the multiple track personnel management system is necessary. This will require companies which have adopted the multiple track management system to ensure implementation of fair recruitment and hiring, openness of the tracks for both men and women and establishment of a system allowing employees to switch tracks.

Discrimination Based on Employment Status

Despite the substantial investments they have made in their education, only half of the married women with university degree are employed full-time. According to the results of the comparison among female graduates, university graduates are more likely to work as full-time workers after marriage than less educated women. Many university graduates, however, quit work in their middle age just as the other women with lower educational background tend to do. Leaving the work place in mid-career is a serious loss to career development of female workers and a loss of trained personnel for the companies. Support systems for women to stay in the same job are important in realizing equal employment

opportunities between the sexes.

Child Care and Family Care Leave Law

Under the Child Care and Family Care Leave Law, workers may take child care leave until the child becomes one year old, and family care leave for a three month maximum. It is inadequate for people requiring a longer period of separation from work in order to raise children. According to the government data, the majority of women prefer to resign from their companies so that they can devote themselves fully to child care and many would then like to return to the labor market after the initial years of child care (Imada, 1998). Therefore, a re-employment system, which allows workers to reenter to the labor market at the same firm at which they were employed earlier is another measure to support women with family responsibilities.

Prospects for the Future

There also needs to be changes in the attitudes of society. It is important to recognize that the changes in women's situations will not occur while traditional

sex roles continue. Moreover, the attitudes and responses of women to the new situation will also be a crucial factor in determining the future outcome. Most young women are not given an opportunity in schools to explore women's issues or current situations of women in Japanese society. Courses in women's studies, which have become gradually more visible in junior colleges and universities, can serve a vital function in this respect. Those involved in the education of young women have a important role to play in this process in terms of helping them to be able to take advantage of rising career opportunities and options and to deal with the problems they are likely to face in the process.

Future Research

This chapter has presented several conclusions derived from the analyses carried out in this study and future responses. Several important subjects which were not covered in this study and future research are described below briefly.

First, it is important to accumulate studies on the determination of female wages and, more extensively, on

female labor behavior in view of the fact that women account for about one-third of the total labor force. The collection of new data source, in particular information on individual wages and work history, is needed to understand wage determination and labor behavior of women in Japan. Second, it is necessary to take into an account the role of bonus payments and its effect on wages. The bonus system is unique in Japan and is usually paid twice a year. I believe that the bonus is one of the most important regular payments since it is expected to receive periodically. Finally, an international comparative study of the subjects covered in this study would enrich our understanding of the issue of gender difference in labor market.

Appendix-A

Protocol Clearance From the Human Subjects
Institutional Review Board

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-5162
616 387-8293

WESTERN MICHIGAN UNIVERSITY

Date: 13 October 2000

To: Subhash Sonnad, Principal Investigator
Machiko Kitagawa, Student Investigator for thesis

From: Sylvia Culp, Chair Sylvia Culp

Re: HSIRB Project Number: 00-09-09

This letter will serve as confirmation that your research project entitled "Gender Inequality in Japanese Labor Market" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 13 October 2001

Appendix-B

Table of Wage Differentials of Regular Employees by Firm Size and Industry

Table 24

Wage Differentials of Regular Employees by Firm Size and Industry

Industry	Male				Female			
	Average	Large	Medium	Small	Average	Large	Medium	Small
(1) Mining	87.8	99.6	89.9	90.6	91.2	87.4	97.1	95.3
(2) Construction	94.4	107.8	100.2	95.1	92.6	94.2	93.6	96.1
(3) Manufacturing	91.6	101.7	90.6	90.1	84.2	95.3	83.5	82.3
(4) Electricity, gas, heat supply, and water	114.2	99.6	112.9	108.0	122.1	114.4	120.6	113.1
(5) Transpoort, communications	86.3	89.4	80.5	84.1	102.0	114.9	92.1	94.4
(6) Wholesale, retail trade, eating and drinking place	95.0	95.6	96.8	95.9	95.1	94.7	96.1	95.5
(7) Finance, insurance	128.2	118.7	117.9	126.7	106.3	98.6	105.3	111.7
(8) Real estate	106.4	102.8	110.1	112.8	101.7	91.6	104.3	108.1
(9) Service	96.0	93.5	101.1	96.4	104.8	110.7	107.4	103.5

BIBLIOGRAPHY

Aiba, K. (1998, September). Unrecognized Inequality in the Japanese Workplace: Structure of Organizational Sex Segregation. Dissertation Abstract International, 59(3), 972-A.

Arrow, K. (1973). The Theory of Discrimination. In Ashenfelter, O. & Rees, A.(Eds.), Discrimination in Labor Markets. New Jersey: Princeton University Press.

Bonney, N., & Stockman, N. & Xuewen, S. (1994). Shifting Spheres: The Work and Family Life of Japanese Female Graduates. Work, Employment & Society, 8(3), 387-406.

Brinton, M.C. (1993). Women and the Economic Miracle: Gender and Work in Postwar Japan. Berkley, Los Angeles, Oxford: University of California Press.

Brinton, M.C. (1989, August). Gender Stratification in Contemporary Urban Japan. American Sociological Review, 54, 549-564.

Brinton, M.C., & Kariya, T (1998). Institutional Embeddedness in Japanese Labor Markets. In New Institutionalism in Sociology. New York: Russell Sage Foundation.

Brinton, M.C., & Ngo, H., & Shibuya, K. (1991, December). Gendered Mobility Patterns in Industrial Economies: The Case of Japan. Social Science Quarterly, 72(4), 808-815.

Brown, C. et al. (1997). Work and Pay in the United States and Japan. New York: Oxford University Press.

Carney, L.S.& O'Kelly, C.G. (1987, Summer). Barriers and Constraints to the Recruitment and Mobility of Female Managers in the Japanese Labor Force. Human Resource Management, 26(2), 193-216.

Gottfried, H., & Hayashi, N.K. (1998, March). Gendering Work: Deconstructing the Narrative of the Japanese Economic Miracle. Work, Employment & Society, 12(1), 25-46.

Ishida, H. (1995, September). Gender Inequality in Authority and Autonomy in the Workplace in Japan, Britain, and the United States. International Journal of Japanese Sociology, 4(4), 75-98.

Kawashima, Y. (1995). Female Workers: An Overview of Past and Current Trends. In Fujimura-Fanselow, K. & Kameda, A.(Eds.), Japanese Women: New Feminist Perspectives on the Past, Present, and Future. New York: The Feminist Press.

Koike, K. (1988). Understanding Industrial Relations in Modern Japan. New York: St. Martin's Press.

Lam,A. (1992). Woman and Japanese Management: Discrimination and Reform. London: Routledge.

Lo,J. (1990). Office Ladies, Factory Women: Life and Work at a Japanese Company. New York: M.E.Sharpe.

Management and Coordination Agency. (1997). Employment Status Survey. Tokyo: Statistic Bureau.

Management and Coordination Agency. (1999). Labor Force Survey. Tokyo: Statistic Bureau.

Matsui,T., Osawa,T., & Onglatco,M. (1991, October). Work-Family Conflict and the Stress-Buffering Effects of Husband Support and Coping Behavior Among Japanese Married Working Women. Journal of Vocational Behavior, 472, 178-192.

Ministry of Labor of Japan. (1995). Basic Survey on Female Employment Management. Tokyo: Ministry of Labor

Ministry of Labor of Japan. (1998). Basic Survey on Wage Structure. Tokyo: Ministry of Labor

Ministry of Education of Japan. (1997). School Basic Survey. Tokyo: Ministry of Education.

Omori,M. (1993). Gender and the Labor Market. Journal of Japanese Studies, 19(1), 79-103.

Ono,A. (1989). Nihon Teki Koyo Kanko to Rodo Shijo (Japanese Industrial Relations and Labor Market). Tokyo: Tokyo Keizai Shinposha.

Osawa,M. (1988, July). Working Mothers: Changing Patterns of Employment and Fertility in Japan. Economic Development and Cultural Change, 36(4), 623-650.

Osawa,M. (1986). Nichibei Hikaku de Mita Keizai Hatten to Josei no Shugyo Kikai no Henka (Economic Development and Changing Women's Employment Opportunities: US. and Japan). Tokyo: Iwanami Shoten.

Saso,M. (1990). Women in the Japanese Workplace. London: Hilary Shipman.

Schwarts,N.F. (1989). Management Women and the New Facts of Life. Harvard Business Review, January-February, 65-76.

Spence,M. (1973). Job Market Signaling. Quarterly Journal of Economics, 87, 355-374.

Tachibanaki,T. (1994). Labor Market and Economic Performance. New York: St. Martin's Press.

Tachibanaki,T. (1996). Wage Determination and Distribution in Japan. New York: Clarendon Press Oxford.

Takahashi,Y. (1997). The Labor Market and Lifetime Employment in Japan. Economic and Industrial Democracy, 18, 55-66.

Tanaka,Y. (1995). Contemporary Portraits of Japanese Women. Westport, Conn: Praeger.