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(Draft)

WOMEN'S ECONOMIC ROLES IN THAILAND

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CHANGES IN WOMEN'S ECONOMIC ROLE IN THAILAND (Revised April, 1993)

1. Introduction

During the past two decades, Thailand has undergone tremendous social and economic changes. In terms of social changes, population growth rate had been brought under control, from an annual growth rate of over 3 percent in early 1970 to a rate of less than 1.5 percent in 1990. The decline in the population growth rate has many implications on the quality and quantity of labor. Following the trend in population growth rate, labor supply in Thailand used to increase by an annual rate of 3 - 4 percent. But the rate of increase in the labor supply had dropped to approximately 2 percent now. With that high a rate of growth in population and labor in the past, enormous resources and time had to be allocated to train those new members, hence the chance to improve the quality of population and labor was quite limited. Therefore, Thailand shared the characteristics of many developing countries, was a country abandon of cheap unskilled labor. However, with recent rapid economic development and decline in the population growth rate, the surplus of labor disappears and will soon possibly evolve to a labor shortage country.

Meanwhile, Thailand has also experienced rapid structural economic changes. Until about 1960, Thai economy was mainly based on agricultural product. The launch of the first five years Social and Economic Plan in 1961 could be marked as the first step in her industrialization effort. After a short period of basic infrastructure expansion, the first policy adopted toward industrialization was import substitution which aimed at reducing imports and increasing employment opportunity within the country. In order to achieve that objective, manufactures were heavily protected with tariff and tax incentive for imported capital goods. However, the policy was of limited success because import of capital goods increased rapidly and employment

generation was limited because most industries used imported capital intensive technology. Therefore around 1972, industrialization policy was shifted from import substitution to export promotion. Thailand was then remained to be a country abandon of cheap labor, hence several export oriented industries which were labor intensive such as textiles and garment, food processing, electronic goods and gem cutting expanded rapidly. These changes have caused tremendous changes in the share of GDP by sector. The share in agricultural product has been reduced from 31.5 percent in 1975 to 12.4 percent in 1990. Within the non-agricultural sector, the manufacturing and the service sectors experienced highest growth rate.

Structural economic changes have also caused employment restructuring. In 1970, more than three fourths of the labor were employed in the agricultural sector, but had been reduced to less than two thirds in 1990. The type of economic establishment also changed from home-base type to establishment separated from home such as firm or corporation. Thus the percentage of self-employed or unpaid family workers declines while the percentage of employee increases.

Amid the process of social and economic changes as outline above, the role of women must also change along. The importance of the economic role of women could be traced back several hundred years in the Thai history. In the past, when prime-age males were forced to be away from their families either to work for the crown or to join the national defence forces, women were left behind to take full responsibility of the family farms. Therefore there never were any cultural or religious barriers which prevented women to participate in economic activities. In fact it is traditionally to assume that women take responsible in housework as well as economic works, while men take responsible in economic works and political activities. This practice that men and women work side by side in economic activities is carried over to modern society. Hence it is not surprising to find that

female labor force participation rate in Thailand has been one of the highest rate in the world, at approximately 70 percent. However economic works in modern societies are in more conflict with houseworks which remain to be the primary responsibility of women, therefore, it is possible that female labor force participation will decline over time. Now women have to choose one or the other more deliberately. This creates new challenge as well as opens up new opportunity for women to participate in the process of social and economic development of the country.

The objective of this paper is to investigate on the changing economic role of women in Thailand. Following this introductory section, changes of women's employment status will be given in section 2. Women's earnings in relation to men will be given in section 3. Section 4 will be devoted to investigate the legal and institutional aspects which affect women's employment. Conclusion and policy implications will be given in section 5.

2. Women's Employment

2.1 Women's labor force participation rate

Labor force participation rate is usually measured by the ratio of persons who are in the labor force to all potential workers. Persons in the labor force includes those who are employed or unemployed but are available for work. The definition of availability varies from country to country. In industrialized countries, actively looking for job is usually used as an indication of availability. In Thailand all persons aged 11 years or over was considered as potential worker. The definition of availability used by the National Statistical Office changed from time to time. Previously, like in the case of industrialized countries, it used the act of looking for job as an indication of availability. But later on, available work force included also those who had not been looking for work because of illness or belief that no suitable work was available.

(See further details on data sources and the definition of labor force participation rate in Appendix I).

Before investigating the women's labor force participation rate in Thailand, factors influencing these rates will be discussed. Conceptually, labor force participation can be viewed as an allocation problem, in which each member of the household allocates his or her time between household and economic activities in order to maximize household utility. Hence the decision whether a member will participate in the labor force depends on the relative marginal productivity of his/her time in various activities. It will be affected by both the physical and human capital endowments of the individual member and of the household, and also by the social and economic environments in which the household operates.

Physical endowments of household which affect the labor force participation of members include wealth and unearned income. With more wealth and higher unearned income, the labor force participation of members is expected to be lower. Educational attainment is an important factor which determines the relative marginal productivity of an individual. Usually it is believed that education will increase the productivity in market activities more than in household activities, therefore women with high education tend to participate more in the labor market. The productivity in household activities also depends on the characteristics of other members in the household. One aspect which received most attention is the effect of the presence of young children on the labor force participation rate of mother. Study by Phananiramai et. al. (1989) confirms that the presence of children aged 0-5 does depress the labor participation rate of female members in the same household. The same study also concludes that female labor force is quite sensitive to economic fluctuation. Whenever economic grows at a rate higher than the average rate experienced in the past which is a proxy for the expected growth rate, more women will

participate in the labor market. But when economic growth is lower than the average rate, women will temporarily withdraw from the labor market. However, such adjustment to economic fluctuation is easier if women work in more flexible economic environment such as in family owned farms or enterprises. For women who work in more formal organization, their labor force participation tends to be more stable.

The labor force participation rates of male and female classified by residential areas as reported by various publications from the Labor Force Survey conducted by the National Statistical Office are given in Table 2.1.1 Slightly different definitions of the labor force participation rates were used during these periods. (For more details, see Appendix I.) The figures show that labor force participation rates fluctuated from year to year, especially those of female rates. On the average, the labor force participation rates of persons lived in municipal areas is lower than those lived in non-municipal areas. This is true for both male and female. And like most countries, the female's labor force participation rate is lower than male's. The difference in the labor force participation rate of male and female is higher in municipal than in non-municipal areas where female labor force participation rate is very high. Municipal and non-municipal differences in female's labor force participation rate is a reflection of the differences in the nature of economic works performed by these two groups of women. In non-municipal areas, women work mainly in agriculture or else work as unpaid worker in small family owned enterprises. Hence women can participate in economic activities while performing their basic responsibilities within the household. However, in municipal areas, most economic activities take place outside the household. Therefore, it is not possible for women to participate in economic activities and taking care of household responsibilities. Hence division of labor between female and male is more evident, namely, men are specialized in market activities while women are specialized in non-market activities.

Over time, the labor force participation rate of Thai population seems to increase slightly among men, and more rapidly among women. However, the increase in the labor force participation rate may be just a reflection of the change in the population age structure toward having higher percentage of persons in the prime age group. (The numbers or the percentage distribution, corresponding to the classification in Table 2.1.1 and the subsequent tables are given in Appendix II).

Labor force participation rates by broad age groups in 1980 and 1989 are given in Table 2.1.2. By age group comparison, the labor force participation rate of prime aged male (age 25-60 years) changes very little over time. However, the rates for prime age women increases slightly over time in municipal areas, but decline in non-municipal areas. The increasing trend in municipal areas should be the results of higher women's educational attainment and lower fertility. As mentioned earlier, educated women in municipal areas have higher labor force participation rate. Lower fertility also reduces women's household burden, hence women with lower fertility have higher labor force participation rate. The declining trend in non-municipal areas is the result of changing economic environment in which more and more economic activities are shifted from home base to non-home base institutions. Such a change in economic environment makes works in more conflict with household activities and result in a lower female labor force participation rate.

For persons aged under 25 years old, the labor force participation rate should be determined by the proportion of persons attending secondary and college education. With more persons continue their education beyond the primary level, the lower is the labor force participation rate. No declining trend in the labor force participation rate for persons aged under 25 years could be detected in Thailand during 1980 and 1989. The labor participation rate for this group was rather high and even

indicated some increasing trend. This implies that during 1980-1989, school enrollment in the secondary and college levels did not increase enough to suppress the labor force participation rate of persons aged under 25 years. This observation is consistent with the fact that school enrollment ratio in these two levels remained very low in Thailand and no significant improvement could be observed in that period. (In 1988 the proportion of secondary school enrollments and population aged 12-17 years was 0.28 and the proportion of tertiary school enrollments and population age 18-24 was 0.04. The proportion for tertiary level was 0.11 if enrollments in opened university are included in the numerator. However, most students enrolled in opened university are simultaneously participated in the labor market.) The labor force participation rate of persons aged above 60 years old seem to decline over time for both male and female. The declining trend prevailed in both municipal and non-municipal areas. Higher wealth accumulation as the result of economic development could be one reason for this declining trend. As the country develop, more workers work in non-agricultural sector which have fixed retirement age at 60 years old may be another reason causing such a decline in the labor force participation rate among the elders.

The labor force participation rates by educational attainment are given in Table 2.1.3. Education is classified into three broad categories: primary, second and tertiary. The number of years of formal education corresponding to these three levels are respectively 6, 6 and 4. In order to concentrate on the effect of education in isolation of the effect of age, only the labor force participation rates of population aged 25-60 years are considered. The effect of educational attainment on male labor force participation rates is unclear. However, education certainly increases the labor force participation rates of women. This effect is more significant among female in municipal areas than that of female in non-municipal areas. That education has positive effect on female labor force participation

is in accord with micro economic theory on household production. As women's education increases, the relative marginal product of her time in market activities increase, hence she (or her household) can achieve higher utility if she allocates more time in economic activities.

The labor force participation rates of persons classified by marital status are given in Table 2.1.4. Again, in order to abstract from the effect of age, we consider only the labor force participation rates of persons aged between 25-60 years. Since male's labor participation rates are relatively high regardless of their marital status, we will only highlight the effect of marital status on female labor force participation rate. In 1989, single and divorced women's participation rates are among the highest compared to women in other marital statuses. It is difficult to state precisely which direction of the effects is this relationship. Either it is out of necessity that single and divorced women have to work in order to earn their livings, or it is because these women possess sufficient earning ability that they choose to be single and are prone to end a marriage contract by divorce once disagreement occurs within marriage. It is interesting to note that in 1980, married women were the group with highest labor force participation rate. Since the fertility rate of women who were 25-60 years old in 1980 was very high, it was likely that with many children to care for, both parents had to work. This was made possible since most works available to women remained in the sphere of agriculture or unpaid family workers, hence participate in the labor market did not completely conflict with caring for children.

2.2 Women Labor Intensive Industries

The size of labor force in 1980 was 22.5 millions and increased to a size of 27.3 millions in 1989, an average growth rate of 2.1 percent annually. The percentage distribution of employment by industry is given in Table 2.2.1. In 1980, agricultural and mining industries absorbed approximately 70

percent of the work force, while manufacturing, commerce and the service industries, each absorbed approximately 8 percent of the total work force. In 1989, agricultural and mining industries remained to be the largest sector in terms of labor absorption, but the percentage had been reduced to 56 percent, while labor absorption in each of manufacturing, commerce and the service industry increased to approximately 13 percent of the total.

It is worth noted that in 1980, female consisted of 47.5 percent of total work force. The percentage decreased to 44.1 in 1989. Female labor intensive industry refers to industry in which the proportion of female labor is higher than the proportion of female labor in total employment. According to this definition, in 1980, industries which were female labor intensive consisted of agriculture, textile, footwear, wearing apparel and paper handicrafts industries, wholesale and retail trade and personal services industries. In 1989, female labor intensive industries consisted of all the above mentioned industries plus non-metallic mining and precious stone industry, food and tobacco manufacturing industries, wood and rubber handicrafts, and public and amusement services industries (see details in Table 2.2.2)

In 1989, approximately 7.1 millions females worked in agricultural sector and 4.3 millions worked in other 15 female labor intensive industries. These women accounted for 93 percent of total female employment (agriculture alone absorbed 56 percent). The most female labor intensive industries are textile, footwear and wearing apparel related industries, Approximately three fourths of employment in these industries are female. Personal services industry is the next most female labor intensive since two thirds of the labor employed in this industry are female. In food manufacturing industries, tobacco manufacture, wood handicrafts and other handicrafts, wholesale and retail trade and public services, approximately half of the labor are female. Female labor intensive industries generated

47.7 percent of GDP in 1989. Many of these industries are also Thailand major exporting industries such as textiles, footwears and other wearing apparel and food manufacturing. Thus female labors make a crucial contribution to the export earnings of the country.

2.3 Women's Work Status

Not only that female employment was shifted from agricultural to manufacturing and service sectors, the employment status also shifted along. When women were employed in agricultural sector, the majorities were classified as unpaid family worker. As more women were employed in the manufacturing, commerce and service sectors, the proportion of women worked as employee and own-account workers increased, while the proportion of unpaid family worker decreased (See Table 2.3.1). This change in working status applied to male as to female, but the change was more rapidly among female workers. Recent rapid growth in manufacturing and service sectors which generated high demand for female workers is one of the reason for such a rapid change. Since the structure of employment by industry was different, there was also differences in the work status of employment by areas. In 1989, the majorities of females employed in rural areas were unpaid family workers. But in urban areas, only one fifth of female labor were unpaid family workers.

Work status also varies by age as shown in Table 2.3.2. For both males and females aged 15-24 years old, being unpaid family worker was the largest group compared to being employed in statuses. Probably many of them were part-time or temporarily employed in their family businesses. But as a person becomes older, male gradually changes his status from unpaid family to own-account worker. Some change the status from being unpaid family worker to employee, and later on, to own-account worker or employer. Therefore, the proportion of own-account worker and employer increased rapidly as a person ages, while the proportion of being employee had a mode at the age 25-34. Female work

status also changed with age, but not as high a proportion changed the status from unpaid family worker to own-account worker or employer. Many of them remained in the status of unpaid family worker throughout their working lives. The pattern of changing employment status by age prevailed in both rural and urban areas, except that the proportion of unpaid family workers and own-account workers was lower while the proportion of employee was higher in urban areas in all age group (See Table 2.3.3 a, 2.3.2 b in appendix II).

2.4 Women's Occupation

Employment by occupation are given in Table 2.4.1. In 1980, females were most frequently found, by declining order, in these three occupations, agricultural worker, sales worker and craftsman or worker in production line. Male were also most frequently found in these three occupations, but the order were agricultural, craftsmen or production line workers and sales workers. In 1989, however, the proportion who worked as craftsmen or production line workers came second, next only to the agricultural and mining workers for both male and female.

White collar workers (professional and technical workers, administrative, executive and managerial personnel and clerks) constituted 5.5 percent of the total employment in 1980, and increased to approximately 8.1 percent in 1989. Within this occupational group, the proportion of male workers in administrative, executive and managerial personnel was 4 times higher than female workers (2.0% versus 0.5%) in 1980. In 1989, although the proportion of female white collar workers increased significantly, the proportion of male workers in administrative, executive and managerial position was still almost 3 times higher than that of female workers (2.2% versus 0.8%).

There was marked differences in the structure of employment by occupation among workers in municipal and non-municipal areas. The structure in non-municipal areas was similar to the country

structure described above. However, in municipal areas, employment was mainly concentrate in the service, commerce and manufacturing industries; and most of them worked as salesmen, craftsmen, workers in production process, or worked in service, sport and recreation related occupation. Over time, the proportion of white collar workers increased rapidly. Again female labor tended to concentrate in a few industries and occupations. This is an indication that occupational choice is more limited for women than for men.

2.5 Women's Working Hours

In 1980, average hours worked per week were 56.7 for men and 55.1 for women. The average hours worked were shorter in 1989 at 54.3 and 51.5 for men and women respectively (see Table 2.5.1). Thus, Thai people on average work almost 9 hours per day and 6 days per week. Women although work slightly fewer hours, but considering other household cores which remain mainly the responsibility of women, Thai women are indeed hard working. Average working hours also vary slightly with age. For men, average working hours increase with age and peak at ages 35 - 44. For women, average working hours have two modes, at ages 15 - 24 and ages 35 - 44. A slight decline in the average working hour for women at ages 25 - 35 corresponds to the time when most women have young children which interferes with women's employment. However, in rural areas, the pattern of working hours has one mode in 1980 at ages 15-24. In 1989, even in rural areas show a small dip in working hour at ages 25-34, then working hours increase slightly at ages 35-44. This means that women's working hours in rural areas gradually follow the pattern of women's in urban areas. Dissolution of extended family and changing nature of work in rural areas causes working in the labor market conflicts more with other women's responsibilities.

In 1980, the average working hours of labor in rural areas were longer than those in urban areas. But as the average working hour in rural areas have been reduced over time, the

average working hours in urban areas remain quite constant between 1980 and 1989. Hence the difference in working hours between urban and rural has been reduced. However, this difference must be interpreted carefully. A smaller proportion of women in urban areas participate in the labor market, compared to that of women in rural areas. These women are most likely full-time and permanently employed in the labor market just like men, therefore their average working hours are equal or even longer than men's. Those women who can not afford to work full-time may have been forced to exit the labor market. Working environments may be quite different from those in rural areas where part-time employment are widely available. Therefore, for urban women, the disaggregation between those who are specializes in market and home activities is more evident. Women who specialize in market activities may rely on hired workers for household cores. But the disaggregation for rural women is less distinct since almost all of them participate in both market and home activities.

3. Women's Earnings

3.1 Men's and women's wage rate comparison

The average nominal monthly wage rate of employees classified by sex, residential area and broad age groups in 1980 and 1989 are given in Table 3.1.1. In 1989, the average for male was 2,833 Baht, for female, 2,266 Baht, or 20 percent lower. In terms of percentages, the gap between male's and female's wage rate seemed to increases with age. Female employees aged 15-24, for example, earn only 8 percent lower than male employees in the same age group. The gap is 15 percent lower for the age group 45-54 years and, for the age group 55 years or over, females earn less than half of what males do. This has two implications. First, on average, females not only start at lower wage, but the rate of increase in earnings is also less than that of males. Second, characteristic differences, such as education and marital status between men and women are diminishing among the younger

generation, hence the gap caused by characteristic differences becoming narrowing. The wage gap between males and females is more evident in municipal areas where females earn 25 percent less than males. The gap, however, narrows with time. In 1980, for example, females earned 28 percent less than males.

One might suspect that the gap in male and female earnings reflected differences in education, however, the gap remains even when educational attainment has been controlled for (see Table 3.1.2). In 1989, on average, female employees with primary education earned 30 percent less than male employees with the same level of education. This gap was 39 percent in municipal areas and 28 percent in non-municipal areas. Wage rates for females with secondary and college education, respectively, was 21 and 25 percent lower than that of males with the same education. Thus, in terms of male-female wage differentials, the gap seems to decrease with the educational attainment. Over time, the male-female wage gap seems to be narrower among employees with primary education (women's wage rate was 40% lower in 1980 versus 30% lower in 1989). But the gap was wider for employees with higher education (14% lower in 1980 versus 21% lower in 1989 for secondary and 20% versus 25% for college education).

The average monthly wage rates of male and female employees, controlling for industry, are compared in Table 3.1.3. In 1989, females always earned less than males in the same industry. The gap varied by industry and location. In municipal areas, the gap was narrowest in the public utility industry. In non-municipal areas, the gap was narrowest in the mining industry. But these are two industries in which females are the most under represented. In 1980, the average wage rate for female employees in the public utility and transport industries was higher than that for male employees in the same industries. Female employment in these two industries, however, was only 1.72 percent of the total female employees. The proportion of female

employees in these two industries increased slightly over time to 2.18 percent in 1989. At the same time, however, the average women's wage rate became lower than men's. Sex discrimination in terms of employment restriction, therefore, seems to decrease over time. As sex discrimination in these high pay industries becomes more relaxed, discrimination in pay becomes more evident.

3.2 Wage Function and Working Hours

A backward bending supply of working hours is well documented in labor economic theory. The positive relationship is usually explained by an increase in the price of leisure, thus results in consuming less leisure and supplying more time for work. The negative portion is explained by the dominant of income to substitution effect of an increase in wage rate. Thus, although leisure becomes more expensive, but the person also becomes richer, and can afford consuming more leisure. However, wage rate and working hours can be related for other reasons too. Firstly, persons who hold part-time job are likely to be marginal participants in the labor market. They tend to benefit less from on the job training and other benefits available to full time job holders. Hence their wage rate should be lower than full time job holder's. This suggest that wage rate and working hours should be positively related. Secondly, employees with very low wage rate may not earn enough for living, and are forced to work longer hours. This suggest that wage rate and working hours should be negatively related. Therefore, although wage rate and working hours are anticipated to be related, the direction of the relationship must be determined empirically.

Regression estimations of total working hours are given in Table 3.2.1, and the semi-log wage functions, with predicted working hours as an independent variable, are given in Table 3.2.2. Age, educational attainment and marital status are among the most important determinants of working hours. Working hours decrease with educational attainment everywhere and for both sexes. The results from these equations confirm the effects of

marital status on working hours which have been discussed previously using tabular analysis. The effects of marital status is stronger among women and urban residents. Single women work longer hours than women in other marital statuses. The characteristics of other members in the same household do not have a systematic effects on working hours.

From the discussion on the relationship between wage rate and working hours, either positive or negative relationships is possible. Because of this confounding problem, five out of eight equations shown in Table 3.2.2, working hours do not have statistically significant effect on wage rate. Among those three equations having significant effects, two of them have negative coefficients, and one has positive coefficients. Therefore, it seems more likely than the other way that long working hours are motivated by low wage rate and insufficient earnings. Co-existence of short working hours and low wage rate is less likely. However, since the relationship between wage rate and working hours is not very strong, wage function in the following section will not include working hours in the equations.

3.3 Wage function and Self-Selectivity Bias

The discussion above shows that women are neither given equal opportunity in employment, nor do they receive the same pay as men. With tabular analysis, however, the source of wage differentials can not yet been analyzed. Male and female wage functions must be estimated for the purpose. The problem with estimating wage function is that wage data is available only among employees. But being employee is not a random process. Using OLS method to estimate the function among the subset of the employed persons will, therefore, cause serious bias and inconsistency. This paper will thus follow Heckman's method in estimating the wage function. The method can be summarized from the following two equations:

$$I = a'X + u \qquad (1)$$

$$W = b'Y + v \qquad (2)$$

The first equation is a probit selection equation for whether a person will be an employee. If $I > 0$ (or $u > -a'X$), the person will choose to be an employee. The second equation is monthly wage for those who are employees. X and Y are respectively vectors of independent variables which determined the probability of being an employee and the wage rate. Assuming that u and v follows a bivariate normal distribution with a variance-covariance matrix of

$$\begin{matrix} 1 & S_{uv} \\ S_{uv} & S_{vv} \end{matrix}$$

Then $E(v \mid u > -a'X) = S_{uv} * pi(-a'X) / Pi (-a'X)$

and $E(W \mid u > -a'X) = b'Y + S_{uv} * pi (-a'X) / Pi (-a'X)$

where pi (.) and Pi (.) are respectively the density function and the distribution of the standard normal. Thus the technique involves two-stage estimation.

Stage one, estimate the probit equation (1) and obtain LAMBDA = pi (-a^'X) / Pi (-a^'X) and

Stage two, estimate by OLS

$$E(W \mid u > -a'X) = b'Y + S_{uv} * LAMBDA$$

If S_{uv} is significant, it means that random factors which influence the probability of being employee and wage rate are not independent to each other. It it is negative, those who choose to be employee have lower earning ability than an average person with similar characteristics. If S_{uv} is positive, it means that those who choose to be employees have higher earning ability than an average person with similar characteristics.

In this study, vector X consisted of own (own age, educational attainment and marital status) and household characteristics (work status of household head and the proportion of adult population aged 15-59 years in the household). From examining the work status of employed persons by age, it can be detected that many persons start working as unpaid family worker. As they become older, however, males gradually change their status from unpaid family to own-account worker, some change their status of unpaid family worker to employee, and later on, to own-account worker or employer. Women also change the status from unpaid family worker to own-account worker as they grow older, but the change is not as drastic as in the case of men. Because of this life cycle pattern, both age and marital status are included in the equation.

The work status of parents and investment in their children's education are related to the children's anticipated occupation. Firstly, children are likely to take up the same occupation as their parents. If parents operate own-enterprise, for example, it is likely that their children will be trained to take over later on. Hence, if the parents are own-account or unpaid family workers, it is less likely that children will take up the status of employee. This depends, however, on the number of people who are available for work in the family enterprise. Secondly, for those who anticipate taking up the status of employee, formal education is the necessary path to high-ranking positions. In other words, because educational performance can be used as an employment screening device, the return to education is expected to be higher in those who anticipate becoming employees than in those who anticipate becoming own account workers. Parents who are own-enterprise workers are therefore, likely to invest less in their children if they anticipate that they will work in the family business. If this is the case, we should observe a positive relationship between education and the probability of becoming an employee. Moreover, members of household headed by persons who are employees should

be more likely to become employees. The higher proportion of adult members in the household, the higher the expected increase in the likelihood of becoming an employee. From the rational discussed above, own educational attainment, the educational attainment and work status of the household head, and the proportion of adult members in the household are included in the model.

Eight probit estimations (two years, 1980 and 1989; the two sexes, male and female; and two areas, municipal and non-municipal) are estimated and shown in table 3.3.1. The overall performance of the model is quite good, as the pseudo R^2 (the proportion of correctly predicted cases by the model) are above 75 percent in municipal areas and almost 90 percent in non-municipal areas. The most important factors determining the probability of being employee are the work status of household head, own age and own educational attainment. If the household head's work status is employee, it is highly likely that household members will be employee. Persons with high education are more likely to be employee. This likelihood increases with age and peak before one reaching the middle ages. Marital status seems to be more important determinant of women's than of men's work status. Single women are more likely to be employees than women in other marital statuses. But the opposite is true for men.

The vector Y consisted of own age, educational attainment and marital status. All these variables are either directly or indirectly determinants of labor's productivity which, in turn, determines wage rate. Eight semi-log wage equations were estimated by OLS with selectivity bias corrections, and the results are shown in Table 3.3.2. The overall performance of the model is satisfactory, with R^2 ranging from 44 to 66 percent. Age and education are positively related to wage rate in all cases. In municipal areas, married men and women on average earn more than those who are single. Divorced or separated men's

earnings are not significantly different from single men in both years. But divorced or separated women, on the other hand, earned less than single women in 1980. The difference was not significant in 1989. In non-municipal areas, married men again earn more than men in other marital statuses, but women's marital status does not significantly affect their earnings.

The coefficients of LAMBDA are quite interesting. With the exception of males in 1989, all coefficients of LAMBDA are statistically significant and with a negative sign in municipal areas. This implies that random factors which drive a person to become an employee also cause a downward bias on the person's wage rate. The implication may be that employees are on the average less capable or they may wish to avoid financial risk and hence are satisfied with a lower average earnings with smaller variances. In non-municipal areas, with the exception of the male equation in 1980 which is positive and significant, the coefficients of LAMBDA are not statistically significant. Probably in non-municipal areas, the chance of being employee is more limited and those who have greater abilities choose to migrate to cities. The employment status for those who remain is thus randomly selected after age, education and marital status are controlled for. But in 1980, male government employees constituted of 26 percent of the total male employees in non-municipal areas. Government employees on average are more capable than employees in the non-municipal areas, who are most likely to be employed in agricultural sector. Thus government employees might have raised the average earnings of employees in non-municipal areas, thus causing a positive coefficient. But as the demand for private employee in non-municipal areas expands over time, the bias due to government employees on average earnings disappears. This explanation seems likely since the proportion of government to total employees in non-municipal areas decreased to 22 percent in 1989.

3.4 A Decomposition of Wage Differentials

Using the equations in Table 3.3.2, wage differences are decomposed by the following equation.

$$\log (Wf/Wm) = bf * (Yf - Ym) + (bf - bm) * Ym$$

where Wm, Wf are male and female wage rate. Ym, Yf are vectors of the average characteristics of male and female respectively. And bm, bf are vectors of the estimated coefficients corresponding to Ym and Yf.

The mean characteristics used to decompose wage differentials are presented in Table 3.4.1. In 1989, on average female employees were three years younger than male employees. Employees in municipal areas were two years older than those in non-municipal areas. Obviously, this is because municipal residents or males generally remain in school longer, hence they start work later. The average educational attainment of female employees was slightly higher than that of male employees (8.7 versus 9.1 in municipal areas and 6.3 versus 6.5 in non-municipal areas) These figures show that the educational attainment of employees is generally higher than that of employed persons (the figures for male and female respectively were 8.2 versus 7.1 in municipal areas and 5.3 versus 4.5 in non-municipal areas). That the education of female employees was higher than male employees also contrasted with the fact that for employed persons in general, male's education was higher. The explanation here is that the labor force participation rate for males in the prime age group is very high regardless of their education. But the labor force participation rate of woman increases with educational attainment. Moreover, educated women are more concentrated in the formal sector and their work status is likely to be employee, while less educated women are over represented in the informal sector and many were self-employed or unpaid family workers.

The labor force participation rate of women and their work status are also affected by marital status, as single women are

most likely to participate in market activities, particularly, being employee. But due to differences in the nature of work, the effect is stronger in municipal than in non-municipal areas. This explains why 50 percent of total female employees in municipal areas were single and 40 percent in non-municipal areas. Some employers may implicitly practice employment discrimination against married women because the belief that married women are absent from work more frequently than single women and less devoted to work due to other household responsibilities. Also, according to law, employers have to pay more compensation to married employees than to single employees due to pregnancy and maternity leave.

According to the decomposition shown in Table 3.4.2, all the differences in characteristics between male and female employees account for less than half of total male-female wage differentials. Using the wage equations presented in the previous section and the mean characteristics of employees, the unbiased log(WAGE) can be estimated for each employee group. These estimated log(WAGE) imply that in 1989, female employees earned 28 percent less than male employees in municipal areas.[1] This difference can be decomposed into two parts. The first part is due to characteristic differences in age, education and marital status. Female employees are on the average younger, have a higher education and a higher proportion are single. Given females' characteristics, if they were paid according to the male wage structure, they should earn only 9 percent less than males on average. In other words, only 32 percent of the total wage differentials could be explained by characteristic differences. The remaining 68 percent of the differentials is unexplained by characteristic differences between men and women.

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1. The estimated percentage difference in male-female wage rate was higher than the actual percentage at 25 percent. This is because ln(WAGE) is used as the dependent variable, therefore only an unbiased estimate of ln(WAGE) is obtained. Since wage rate is likely to be skew, therefore the estimated exp(ln(WAGE)) at the mean can be different from average wage rate.

These other sources may be sex discrimination in pay or employment in highly-paid positions that are not available to women.

In non-municipal areas, although females earned only 21 percent less than males, the sources of the differences are similar to those of municipal areas, namely, characteristic differences accounted for only 31 percent. The remaining 69 percent was due to differences in the pay structures and availability of employment choice for male and female employees.

According to the 1980 wage structure, the calculated female's wage is 31 and 32 percent lower than the male's in municipal and non-municipal areas respectively. Characteristic differences account for approximately 39 and 43 percent respectively in municipal and non-municipal areas respectively. This means that over time, the percentage differences in wage rate between male and female have become narrower. Moreover, the proportion of wage differentials due to characteristics differences seems to decline, while the proportion due to wage structure seems to increase over time. The implication here is that merely accelerating the education of women can not close the wage gap between males and females unless the "equal employment opportunities" and "equal work for equal pay" principles are imposed into the existing system.

4. Legal and Institutional Aspects of Women's Employment

The Ministry of Interior is empowered to regulate on employment of labour in general, such as fixing normal hours of work, overtime, rest periods, etc., including regulation on employment of women and children. The announcement of the Ministry of Interior concerning labour protection in April 16, 1972 has provided more details on labour protection which applied to both men and women. The announcement does not apply to the central, the provincial and the local government officials, or employees of other establishments as specified by the Ministry of

Interior. Employee in the announcement does not include domestic workers. One chapter in the announcement devoted to women employment (see appendix III for details). The objective of such announcement is mainly to protect women from the types of work which are considered to be too heavy or too dangerous for women. According to the announcement, no employer is allowed to employ women in the following works:-

(1) Works related to cleaning machinery or motors in motions, works in construction too high above the ground, mining involving underground works, work connected with the manufacture or transport of explosives or inflammable materials, etc.

(2) Works which are too heavy for women. Thus, the law specified maximum weight which women are allowed to carry, lift, haul or push.

(3) Works in places which are not safe for women. For example, unmarried women under eighteen years of age are not allowed to work in night clubs, dance halls, dance studios, or places where liquor spirit is sold.

(4) Works during 24.00 hours and 06.00 hours, unless by nature or by conditions, the works must be performed during such time.

However, these restrictions are not so strictly observed, especially in small establishments.

The second half of the chapter is devoted for the welfare of women related to maternity. A woman is entitled to take maternity leave, in addition to 30 days of annual sick leave, for a period of 60 days including holidays. If a woman has been employed for not less than 180 days, she is also entitled to receive wages during her leave at her current wage rate for a period not exceeding 30 days. For woman who has been employed for less than 180 days, the leave is without pay. Moreover, employer has to consider the request of any woman to change work

temporary before or after her confinement, if with a certificate from a first class medical doctor, showing that she is unable to be employed in her present work.

While the benefits described in previous paragraph are still applicable, recently, maternity leave has been extended to a maximum of 90 days. For woman who has been employed for not less than 180 days, she is entitled to leave with pay for the whole period of 90 days. The employer is responsible to pay her current wage rate for 45 days, and the Social Security Office is responsible to pay for the remaining 45 days. Because of this financial arrangement, the extension is applied only to employees in establishments which are under the coverage of Social Security Act. In the past, establishments with at least 20 employees were covered by the Act. Since June, 1993, establishments with at least 10 employees have been brought under the coverage.

In the public sector, there are a few positions which can be filled by men only. These positions usually involve working in the field, working with male prisoners, or positions which are by nature, the person who holds the position must move frequently from one locality to another. However, it is the policy of present government administration to reduce employment discrimination against women, therefore, several jobs have been re-specified so that employing women in those previously prohibited positions are allowed. Hence, literally, there is no more restriction against employing women in any government position, but in practice, it will be a long time before these positions are actually filled by women. Traditionally, some positions are filled only by men despite the fact that no regulation prohibits employing woman in those positions. Example of such position is governor at the provincial level. At present, there is one female governor who are promoted to that position for less than half a year. In the past, some local government positions are filled only by men, for example, headman at the district or sub-district level. Although, nowadays, no

regulation prohibits women taking these positions, only a tiny proportion of them are woman.

According to the discussion above, there are only few regulations in Thailand which prevent women from being employed in certain positions. But in practice, some positions have never been filled by women. In terms of pay discrimination, section 26 of chapter 4 in the announcement stated that:- "Where the work is of the same nature, quality and volume, the fixing of wages, overtime pay, and holiday work pay, shall be equal regardless of the sex of the employee." Thus pay discrimination is not allowed by law. With regard to the 1988 UN convention on discrimination against women, in principle, the government has ratified, although with several reservations. But in reality, discrimination against women is practiced widely. Discrimination against women in terms of promotion exists and is evident in both private and public employment.

Not only that discrimination against women still exists, discrimination against married women, explicitly or implicitly, in some positions can also be observed. For example, it is relatively difficult for unskilled women to be employed if they are with young children. Soonthorndhada has surveyed several large and medium factories around Bangkok and its periphery in 1990 and found that very few establishments provide facilities for married women. Most dormitories for employees are arranged for single women. No in-plant child-care services provided for employees. Hence, workers with young children have to rely on relatives or hired workers for such services. But the expense usually is too expensive for workers to afford. Thus working environments have already discourage married workers with young children. For women work in higher positions, they could rely on hired domestic workers for child care and other household responsibilities. However, due to the expansion of employment in industrial sectors, the supply of domestic workers becomes more scarce and wage rate has been pushed up. Without domestic help,

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working women will be loaded with both market and household activities. As mentioned earlier, while participation of women in the labor market is fully welcome by society, household cores remain mainly the responsibility of women.

In fact, discrimination against women occurs even before women entering the labor market. Traditionally, daughter is prepared to play the role of mother and follower, while son is prepared to play the role of leader. Thus, when constrained by resources, parents tend to invest less in daughter than in son. Women are welcome to participate in the labor market for economic reason. But working as a mean to establish self esteem or fulfillment is not yet widely accepted. The roles women played as wives and mothers remain important factors in measuring the women's success. Thus, women are still given second priority for education, training on the job and promotion to high-ranking positions. These attitudes in the value of traditional segregated role between sexes prevail and are difficult to change, even among women.

One reason which make Thailand seems to lag behind in this social aspect of sex discrimination may be that Thailand lack institutions which are strong enough to push the issue. In fact, Thailand does not lack institutions or persons who are interested in women issues. NGO, social workers, academicians and unions, are realized of the problems and fight to solve it. However, these institutions or persons usually deal with specific problems or with specific group of underprivileged women. The cooperation among them are not strong enough to create unanimous political will to solve the problem. Only recently in June 1991, that National Commission on Women Affair has been established under the Office of The Prime Minister. The commission is chaired by the prime minister or deputy prime minister, includes head of several government and non-government agencies dealing with women issues. The tasks of the commissions are:

(1) To present to the cabinet with policy and plan for promoting the activities, roles and status of women.

(2) To design master action plan for the policies approved by the cabinet which must be in harmony with the National Social and Economic Plan, and to co-operate, monitor and evaluate the action plan.

(3) To help and to promote activities related to women development in both public and private agencies.

(4) To advice the prime minister of any changes in law and regulations which might interfere with the promotion of the activities, roles and status of women.

(5) To report to the cabinet at least twice a year, about the situation of women in general.

(6) To consider any other tasks as given by the cabinet.

(7) The commission is authorized to question and have access to necessary documents from public agencies for their consideration.

At present, the commission has established several sub-committee to study various issues related to women. Although it is too soon to assess the performance of the commission, it is expected that some major changes aimed at reducing women discrimination could be pushed forward through this office.

5. Summary and Conclusion

This paper examines changes in various aspects of women's economic roles during 1980 and 1989. Women's labor force participation rates have been very high during the decade under examination. The women's labor force participation rate in municipal areas is lower, but showing an increasing trend over time, while the rate in non-municipal areas is higher, but showing a declining trend. Women's employment by industry,

occupation and work status is not evenly distributed. In 1980, they are concentrated in agricultural sector, textile, footwear and paper handicrafts, trade and personal services industries. In 1989, female labor intensive industries expanded to include also food manufacturing industries, cutting precious stone and leather and rubber handicrafts. These female labor intensive industries are also Thailand major exporting industries which implies that female labors make a crucial contribution to the export earnings of the country.

Women's work status changes with the industry in which they work. Women employed in agricultural sector are mainly work as unpaid family worker. Women in manufacturing, commerce and service sectors are likely to work as employee. Thus the proportion of women working as employee increases over time. In term of occupation, women are under-represented in professional, administrative and technical work. Male employment in these occupation was 4 and 3 times that of female's in 1980 and 1989 respectively.

Women participating in the labor market, on average, work 55 hours a week in 1980. Working hours were reduced to 52 hours in 1989. Working hours in rural areas was higher, but showing a declining trend, causing a diminishing difference in working hours between rural and urban women over time. Women's working hours were only slightly less than that of men. If these women also have other household responsibilities, they are indeed hard working.

Among employees, women's monthly wage rate was 28 and 20 percent less than men's in 1980 and 1989 respectively. Thus the gross difference in earning becomes narrower. Approximately 40 percent of wage-differentials in 1980 could be explained by differences in the average age, education and marital status between males and females. But these characteristic differences between gender became less pronounced because they could explain only 30 percent of wage-differentials in 1989. Thus the study

confirms that discrimination against women in terms of pay and employment still exists in Thailand.

In contrast to the evidences of economic discrimination against women, restriction in employing them was seldom written down formally, unless for protective reason. This means that any attempt to reduce discrimination against women must go deeper than legal aspects. The traditional value of segregated role between sexes must be changed. And only strong political will and strong co-operation between various involved institutions can accelerate such change.

Table 2.1.1
The Labor Force Participation Rate of Thai Population
Aged above 11 Years, in 1971-1989

Year	Municipal			Non-Municipal		
	Total	Male	Female	Total	Male	Female
1971	51.7	64.3	39.0	76.3	81.5	71.1
1972	54.7	66.3	43.5	71.4	79.2	63.7
1973	53.3	64.9	42.0	70.7	78.7	62.9
1974	52.1	64.2	40.3	68.7	76.3	61.3
1975	50.9	63.0	38.7	71.5	77.5	65.5
1976	51.6	62.9	40.3	70.5	77.4	63.5
1977	56.2	65.9	46.4	73.3	78.9	67.7
1978	58.5	67.9	49.2	76.5	80.3	72.6
1979	58.2	67.7	48.6	72.7	77.4	68.0
1980	59.0	68.1	50.2	75.7	79.0	72.4
1981	60.1	68.5	51.9	75.9	79.3	72.4
1982	61.7	68.1	55.5	77.2	80.4	74.0
1983	59.5	67.8	51.4	75.6	79.7	71.6
1984	60.1	68.6	51.6	75.8	80.4	71.2
1985	60.8	69.0	52.9	75.9	80.9	70.9
1986	60.0	68.4	52.0	76.3	81.6	71.0
1987	62.3	69.9	54.9	75.1	81.3	68.8
1988	63.3	70.8	56.2	77.8	81.8	73.8
1989	66.8	75.9	58.1	80.1	87.2	73.0

Source : Report of the Labor Force Survey, Round 2 (1971-1987, 1989)
Round 3 (1988) National Statistical Office, Office of
the Prime Minister

Note 1 : Figures shown labor force participation rate
of population aged above 13 years in 1989

Table 2.1.2
Labor Force Participation Rate Classified by Age and Residential Areas
(in percent)

Age	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total	70.1	85.1	58.1	75.9	73.0	87.2
13-14	39.0	37.5	13.3	10.7	43.8	42.4
15-24	73.8	81.9	54.7	57.3	77.9	86.9
25-34	80.3	97.9	74.2	96.3	82.1	98.3
35-39	83.7	98.6	73.0	97.8	86.6	98.8
40-49	80.1	98.5	67.6	96.9	83.1	98.9
50-59	70.6	94.9	55.5	90.9	74.0	95.8
60+	25.1	50.1	15.7	34.6	27.2	53.4
1980						
Total	68.5	77.1	50.2	68.0	72.4	79.0
11-14	22.7	20.0	8.6	5.4	25.2	22.5
15-24	75.0	78.1	45.4	52.4	81.7	83.8
25-34	85.0	97.9	70.2	96.2	89.0	98.3
35-39	88.6	99.0	70.6	98.5	92.2	99.1
40-49	87.8	98.5	69.4	97.1	91.2	98.8
50-59	77.7	95.5	54.0	90.4	82.2	96.4
60+	31.4	56.7	20.1	42.5	33.5	59.2

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey(Round 2), May 1989
National Statistical Office, Office of the Prime Minister

Note : All figures in 1980 refer to persons aged above 11 years old, and all figures in 1989 refer to persons aged above 13 years old

Table 2.1.3
Labor Force Participation Rate of Population Aged 25-60 Years,
Classified by Educational Level and Residential Areas

(in percent)

Education	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total	76.7	96.4	67.9	94.6	79.0	96.8
Non+Less Than Primary	72.6	91.6	51.4	78.3	76.5	93.4
Primary	76.3	97.0	62.9	95.4	78.8	97.3
Secondary + Vocation	75.8	95.1	72.0	94.8	81.9	95.5
University + Teacher Training	92.1	97.7	89.8	96.3	95.4	99.3
Other	71.7	100.0	61.9	100.0	100.0	100.0
1980						
Total	84.9	97.7	67.3	95.6	88.8	98.2
Non+Less Than Primary	79.8	94.6	57.3	90.5	84.0	95.3
Primary	86.7	98.5	64.5	97.0	90.4	98.7
Secondary + Vocation	75.5	95.2	74.3	94.1	78.3	96.6
University + Teacher Training	93.4	96.7	92.9	97.0	94.1	96.4
Other	68.0	97.4	64.2	97.7	73.8	96.9

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey(Round 2), May 1989
National Statistical Office, Office of the Prime Minister

* See note under table 2.1.2

Table 2.2.1 *
Percentage of Total Employment by Industry

Industry	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number (in Thousand)	11,909.0	15,363.5	2,147.2	2,665.6	9,761.8	12,697.9
Agriculture	56.2	57.8	3.3	4.5	67.9	69.0
Mining	0.1	0.2	0.0	0.1	0.1	0.2
Manufacturing	14.1	11.0	21.0	22.2	12.6	8.7
Construction	1.2	6.2	1.4	7.6	1.2	6.0
Electricity	0.1	0.7	0.5	1.8	0.0	0.4
Commerce	14.2	9.6	33.0	28.4	10.0	5.7
Transport	0.6	4.2	1.9	10.9	0.3	2.8
Service	13.4	10.1	38.4	24.2	7.9	7.2
Other	0.1	0.1	0.5	0.3	-	-
1980						
Total Number (in Thousand)	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
Agriculture	74.1	67.8	3.2	3.9	84.3	78.9
Mining	0.1	0.2	0.0	0.2	0.1	0.2
Manufacturing	7.1	8.7	20.2	23.4	5.2	6.2
Construction	0.6	3.2	1.4	6.0	0.5	2.7
Electricity	0.1	0.5	0.3	1.5	0.0	0.3
Commerce	9.7	7.4	35.3	29.4	6.0	3.6
Transport	0.3	3.6	1.2	10.7	0.1	2.4
Service	8.2	8.6	38.2	24.9	3.8	5.7
Other	0.0	0.0	0.0	0.0	-	-

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

* See note under table 2.1.2

Table 2.2.2
Employment and GDP Share in Female Labor Intensive Industries

	Industry	Female	Male	Proport Female	% Share in Labo	% Share in GDP
	1980					
1	Agriculture	7,988,817	7,903,187	50.3	69.6	14.9
23	Textiles handicrafts	145,170	54,601	72.7	0.9	2.53
24	Footwear handicrafts,wearing apparel and other wearing apparel and made-up texiile	199,228	65,233	75.3	1.2	2.02
27	Paper handicrafts and paper products	16,940	18,589	47.7	0.2	0.42
61	Wholesale and Retail Trade	1,013,683	829,563	55.0	8.1	11.92
85	Personal Services	499,963	287,233	63.5	3.4	7.15
	Total	9,863,801	9,158,406	51.9	83.4	38.94
	1989					
1	Agriculture	7,113,205	8,645,675	45.1	56.7	12.09
19	Non-metallic Mining and Precious Stone	4,725	4,332	52.2	0.0	0.28
20	Food manufacturing industries except Beverage industries	310,097	296,786	51.1	2.2	2.99
22	Tobacco manufactures and snuff	20,076	18,476	52.1	0.1	0.88
23	Textiles handicrafts	229,136	71,095	76.3	1.1	2.91
24	Footwear handicrafts,wearing apparel and other wearing apparel and made-up texiile	325,308	87,530	78.8	1.5	2.79
25	Wood handicrafts and bottle cap, excluding furniture	232,243	214,775	52.0	1.6	0.38
27	Paper handicrafts and paper products	18,162	20,610	46.8	0.1	0.34
29	Leather handicrafts and products of leather and fur,except Footwear and wearing apparel	3,721	0	100.0	0.0	0.95
30	Rubber handicrafts and products of rubber	22,842	25,678	47.1	0.2	0.72
39	Handicrafts inadequately Defined	139,107	118,279	54.0	0.9	1.93
61	Wholesale and Retail Trade	1,593,210	1,368,637	53.8	10.7	9.82
82	Public Services	458,840	397,815	53.6	3.1	3.94
84	Amusement Services	38,482	46,319	45.4	0.3	0.51
85	Personal Services	877,984	446,291	66.3	4.8	7.16
90	Activities inadequately Defined	14,171	10,489	57.5	0.1	--
	Total	11,401,309	11,772,787	49.2	83.4	47.7

Table 2.3.1
Percentage of Total Employment by Work Status

Status	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number(in Thousand)	11,909.0	15,363.3	2,147.2	2,665.6	9,761.8	12,697.9
Employer	0.6	1.8	1.8	3.4	0.4	1.1
Public Employee	5.3	7.8	14.8	17.9	3.3	5.6
Private Employee	24.4	27.2	45.2	47.1	19.8	23.1
Own-Account Worker	19.7	40.6	18.2	21.5	20.0	44.7
Unpaid Family Worker	49.9	22.5	20.0	8.1	56.5	25.6
1980						
Total Number(in Thousand)	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
Employer	0.5	1.9	1.7	4.8	0.4	1.4
Public Employee	3.2	7.1	12.9	18.6	1.9	5.1
Private Employee	13.8	19.0	38.1	46.1	10.3	14.3
Own-Account Worker	16.9	42.1	23.2	22.5	15.9	45.4
Unpaid Family Worker	65.6	29.9	24.1	8.1	71.6	33.7

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

* See note under table 2.1.2

Table 2.3.2

CLASSIFICATION OF EMPLOYMENT BY WORK STATUS, GENDER AND BROAD AGE GROUP (WHOLE KINGDOM)

	15-24	25-34	35-44	45-54	55-64	65+	Total *
1989	3218746	7770417	5233895	3458540	1816737	567369	27065704
Male	4455587	4392992	2929847	1965238	1095887	360930	15200481
Employer	0.33	1.74	3.40	4.07	3.01	6.85	2.16
Public Employee	1.85	10.27	10.85	10.53	6.82	0.00	7.46
Private Employee	38.85	36.73	26.33	18.03	14.48	7.56	30.63
Own-Account Worker	11.48	36.43	54.57	65.40	73.47	81.50	40.10
Unpaid Family Worker	47.49	14.83	4.84	1.98	2.23	4.09	19.65
Female	3763159	3377425	2304048	1493302	720850	206439	11865223
Employer	0.06	0.94	1.47	1.31	0.11	1.66	0.77
Public Employee	1.69	8.96	7.00	5.31	1.38	0.00	5.20
Private Employee	35.94	30.66	19.52	13.95	11.30	10.37	26.54
Own-Account Worker	7.99	18.15	30.89	35.89	49.13	59.23	22.23
Unpaid Family Worker	54.31	41.29	41.11	43.55	38.09	28.74	45.26
1980	6786410	5898724	4330268	2916045	1404988	471853	21808288
Male	3434110	3131331	2283602	1569552	786731	294388	11499714
Employer	0.16	2.02	3.52	2.80	2.66	3.49	1.95
Public Employee	3.68	10.62	9.92	7.36	6.06	0.11	7.38
Private Employee	24.36	24.17	16.93	12.32	8.51	6.45	19.65
Own-Account Worker	7.28	39.81	62.86	75.13	80.58	83.93	43.41
Unpaid Family Worker	64.51	23.38	6.77	2.39	2.19	6.02	27.60
Female	3352300	2767393	2046666	1346493	618257	177465	10308574
Employer	0.11	0.73	0.94	0.48	0.80	1.38	0.55
Public Employee	2.53	6.05	3.12	1.66	1.25	0.06	3.36
Private Employee	19.23	15.06	10.13	8.55	6.24	6.59	13.91
Own-Account Worker	5.27	16.16	22.28	29.43	37.09	50.12	17.41
Unpaid Family Worker	72.86	62.00	63.54	59.88	54.61	41.85	64.77

* The figures are slight ly different from those shown in Table 2.2.3 because only employed persons aged above 15 years are included in this table

Table 2.4.1
Percentage Distribution of Total Employment by Occupation and Residential Areas

Occupation	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number (in Thousand)	11,908.2	15,363.5	2,147.2	2,665.6	9,761.8	12,697.9
1.Professional, Technical	4.1	3.1	11.8	7.5	2.4	2.1
2.Administrative,Executive and Managerial	0.8	2.2	3.2	7.8	0.3	1.0
3.Clerical	3.6	2.5	13.9	8.9	1.3	1.1
4.Sales	14.6	7.9	31.4	20.6	10.9	5.3
5.Farmers, Fishermen, Hunters Loggers, Miners, Quarrymen	56.1	57.6	3.3	4.5	67.8	68.7
6.Workers in Transport and Communication Occupation	0.3	5.1	0.8	13.2	0.2	3.3
7.Craftsmen, Production-Process	15.7	18.5	19.5	28.4	14.9	16.5
8.Service, Sport and Recreation	4.8	3.2	15.8	8.8	2.3	2.0
9.Other	0.1	0.0	0.3	0.2	-	-
1980						
Total Number (in Thousand)	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
1.Professional, Technical	2.5	2.5	9.8	6.4	1.4	1.8
2.Administrative,Executive and Managerial	0.5	2.0	3.0	8.4	0.1	0.9
3.Clerical	1.6	1.9	8.7	8.4	0.5	0.8
4.Sales	10.5	6.4	38.0	23.6	6.5	3.4
5.Farmers, Fishermen, Hunters Loggers, Miners, Quarrymen	74.2	67.8	3.2	4.1	84.5	78.9
6.Workers in Transport and Communication Occupation	0.2	4.0	0.6	12.1	0.1	2.6
7.Craftsmen, Production-Process	7.8	12.8	20.6	29.1	5.9	10.0
8.Service, Sport and Recreation	2.8	2.5	15.9	7.8	0.9	1.6
9.Other	-	-	-	-	-	-

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

* See note under table 2.1.2

TABLE 2.5.1
AVERAGE HOURS WORKED PER WEEK BY AGE AND GENDER

YEAR / GENDER / AREA	AGE						
	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
1989							
Male							
WHOLE KINGDOM	54.28	52.30	53.08	53.76	54.34	53.94	51.55
URBAN	52.92	55.40	54.09	51.65	54.34	53.94	51.56
RURAL	54.57	52.16	52.93	54.35	55.05	54.32	51.55
Female							
WHOLE KINGDOM	51.46	51.38	51.74	50.37	51.70	50.08	48.00
URBAN	53.23	58.16	56.06	50.46	52.13	50.97	51.61
RURAL	51.07	50.83	50.99	50.34	51.58	49.90	47.49
1980	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
Male							
WHOLE KINGDOM	56.73	54.12	56.59	55.48	55.87	55.62	52.12
URBAN	52.83	52.77	52.91	50.91	52.60	53.10	53.74
RURAL	57.40	54.17	57.05	56.67	56.47	56.05	51.91
Female							
WHOLE KINGDOM	55.06	54.74	54.89	52.82	52.65	52.23	48.72
URBAN	54.20	59.78	55.05	50.64	52.84	55.19	52.73
RURAL	55.17	54.47	54.87	53.27	52.62	51.82	48.27

Table 4.1.1 The Average Monthly Wage Rate of Employees Classified by Age, Sex and Residential Areas

(in Baht)

Age	Total			Municipal			Non-Municipal		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1989	2,618.03	2,833.17	2,266.28	3,710.10	4,149.71	3,096.74	1,994.66	2,151.49	1,713.20
15-24	1,411.50	1,465.39	1,344.71	1,794.17	1,961.65	1,628.51	1,244.24	1,278.78	1,196.95
25-34	2,663.14	2,730.35	2,549.84	3,433.00	3,571.59	3,239.84	2,179.50	2,261.46	2,023.00
35-49	3,645.66	3,882.94	3,191.43	5,167.23	5,684.82	4,315.96	2,619.19	2,772.03	2,293.71
45-54	4,244.93	4,440.55	3,770.47	6,132.66	6,471.49	5,460.51	2,980.04	3,212.94	2,327.35
55+	3,707.29	4,319.04	1,929.11	6,162.59	6,916.25	3,629.51	2,255.98	2,694.41	1,080.95
1980	1,659.60	1,842.08	1,331.31	2,153.20	2,382.81	1,765.94	1,366.51	1,532.75	1,055.55
15-24	1,010.35	1,078.80	927.39	1,151.31	1,283.88	1,019.52	945.18	995.99	877.63
25-34	1,830.73	1,896.02	1,703.50	2,212.27	2,301.74	2,060.17	1,531.20	1,603.42	1,373.88
35-49	2,083.25	2,300.39	1,550.51	2,750.74	2,943.27	2,292.58	1,715.07	1,950.65	1,127.12
45-54	2,054.57	2,366.55	1,313.19	3,038.38	3,246.66	2,376.15	1,494.37	1,798.73	872.46
55+	2,112.47	2,375.93	1,398.14	3,239.11	3,295.73	3,031.25	1,543.47	1,856.30	804.48

Table 3.1.2 The Average Monthly Wage Rate of Employees Classified by Education, Sex and Residential Areas

(in Baht)

Education Attainment	Total			Municipal			Non-Municipal		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1989	2,618.03	2,833.17	2,266.28	3,710.10	4,149.71	3,096.74	1,994.66	2,151.49	1,713.20
Non-Primary	1,250.09	1,472.39	1,009.73	1,914.89	2,402.50	1,388.89	1,078.82	1,233.11	911.90
Primary	1,650.03	1,852.91	1,291.82	2,236.99	2,678.16	1,624.35	1,440.50	1,592.94	1,146.18
Secondary-Vocation	3,328.55	3,575.30	2,834.17	3,786.13	4,026.18	3,342.43	2,740.53	3,030.69	2,093.53
University-Teacher training	5,851.84	6,672.06	5,021.72	6,640.89	7,902.13	5,398.27	5,005.19	5,390.01	4,534.98
Others	3,027.88	3,027.32	3,033.33	3,880.65	4,009.24	3,033.33	915.56	915.56	
1980	1,659.60	1,842.08	1,331.31	2,153.20	2,382.81	1,765.94	1,366.51	1,532.75	1,055.55
Non-Primary	915.65	1,148.74	652.58	1,374.06	1,638.23	910.09	787.68	974.72	600.38
Primary	1,173.63	1,360.58	816.50	1,396.04	1,672.88	916.18	1,074.52	1,228.13	767.80
Secondary-Vocation	2,326.12	2,425.98	2,085.50	2,545.61	2,703.19	2,221.61	2,009.44	2,069.89	1,822.45
University-Teacher training	3,360.07	3,668.84	2,942.29	3,928.34	4,474.15	3,331.51	2,888.20	3,104.37	2,537.34

Table 3.1.3 The Average Monthly Wage Rate of Employees Classified by Industry, Sex and Residential Areas

(in Baht)

Industry	Total			Municipal			Non-Municipal		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1989	2,618.03	2,833.17	2,266.28	3,710.10	4,149.71	3,096.74	1,994.66	2,151.49	1,713.20
Agriculture	1,046.18	1,157.43	884.86	1,685.97	1,908.47	1,082.71	1,028.52	1,131.67	881.29
Mining	2,483.74	2,589.68	1,583.44	3,825.23	4,538.23	2,183.70	2,188.99	2,271.51	938.00
Manufacturing	2,404.60	2,766.03	1,934.01	3,136.15	3,542.18	2,536.27	1,856.18	2,126.47	1,535.61
Construction	1,899.33	1,923.65	1,729.96	2,373.49	2,469.47	1,890.37	1,742.21	1,753.68	1,651.49
Electricity	6,559.33	6,670.65	6,151.41	7,824.73	8,027.83	7,250.84	5,168.96	5,355.11	4,211.50
Commerce	3,510.00	3,809.18	2,978.53	4,290.03	4,752.66	3,600.96	2,193.07	2,466.70	1,523.44
Transport	4,189.02	4,196.86	4,138.10	5,148.42	5,153.25	5,122.88	2,929.40	3,024.40	2,070.06
Service	3,577.50	3,960.70	3,149.54	3,745.15	4,478.33	3,132.05	3,414.00	3,576.26	3,172.64
Others	3,902.62	7,474.84	2,568.38	5,422.21	7,474.84	3,868.68	1,301.45		1,301.45
1980	1,659.60	1,842.09	1,331.31	2,153.20	2,382.81	1,765.94	1,366.51	1,532.75	1,055.55
Agriculture	705.84	789.21	621.61	1,489.92	1,637.91	1,042.56	685.44	755.75	616.20
Mining	1,644.52	1,725.54	973.21	2,339.97	2,339.97		1,569.19	1,649.97	973.21
Manufacturing	1,599.07	1,836.40	1,167.27	1,784.77	2,015.15	1,350.04	1,470.14	1,709.56	1,045.32
Construction	1,362.93	1,428.64	986.75	1,721.13	1,789.69	1,371.07	1,241.02	1,308.67	837.57
Electricity	2,693.64	2,663.95	2,988.86	3,102.92	3,107.50	3,074.21	2,273.98	2,253.64	2,715.58
Commerce	2,216.34	2,401.22	1,845.07	2,475.94	2,638.37	2,125.31	1,507.31	1,692.23	1,199.96
Transport	2,011.83	1,992.42	2,217.19	2,539.05	2,532.52	2,585.86	1,528.19	1,533.27	1,437.64
Service	2,037.83	2,222.11	1,762.76	2,152.70	2,527.36	1,777.89	1,942.35	2,035.75	1,743.06
Others	1,500.00		1,500.00	1,500.00		1,500.00			

Table 3.2.1

Regression Equations of Total Hours Worked (TOTHOUR)

	Municipal				Non-Municipal			
	Male		Female		Male		Female	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
1989								
One	69.461800	27.468	72.554600	27.639	67.467200	25.995	67.328200	23.939
Age	-0.482631	-3.335	-0.410910	-2.602	-0.429572	-2.826	-0.652475	-3.861
Age2	0.004009	2.158	0.001200	0.547	0.003691	1.876	0.005561	2.409
Yearedc	-0.847986	-9.893	-1.489850	-22.835	-0.830833	-7.671	-0.977883	-9.038
Marry	-1.042410	-1.605	-4.972540	-7.843	0.711886	0.905	-1.208160	-1.350
Others	0.322764	0.177	-3.252310	-3.011	0.954508	0.539	1.486840	0.988
Hyearedc	-0.088450	-1.031	0.387115	6.463	-0.275370	-2.363	-0.026616	-0.212
Hown	-0.057931	-0.059	1.715350	1.913	-0.476846	-0.636	-3.501880	-4.195
Hnowork	-1.853680	-2.320	0.778979	1.076	-0.848040	-0.875	0.257415	0.225
Age15-59	-0.125129	-0.854	0.027479	0.176	0.032637	0.164	1.188770	4.719
Pseudo R2	0.144121		0.320310		0.100637		0.164615	
Case	2,422		2,032		2,286		1,407	
1980								
One	70.112500	46.884	78.417600	51.174	65.898500	36.135	70.049100	43.707
Age	-0.504829	-5.876	-0.910331	-9.656	-0.150298	-1.392	-0.420325	-4.330
Age2	0.004445	4.128	0.009080	6.915	0.000611	0.447	0.003915	3.030
Yearedc	-1.035000	-21.550	-1.728890	-44.050	-1.577160	-20.286	-1.759460	-29.258
Marry	-0.011016	-0.026	-4.185440	-10.042	-0.564827	-0.912	-1.504470	-2.723
Others	-0.187713	-0.178	-0.222270	-0.301	-1.717230	-1.230	0.861712	1.046
Hyearedc	-0.077724	-1.622	0.409518	10.906	-0.092268	-1.067	0.104995	1.565
Hown	-0.719405	-1.319	2.207820	4.447	0.944632	1.550	0.297184	0.570
Hnowork	-2.136350	-4.367	-0.269539	-0.588	0.508079	0.672	0.602555	0.949
Age15-59	-0.332296	-0.458	0.266663	3.488	0.024107	0.189	-0.091378	-0.722
Pseudo R2	0.162871		0.406877		0.237541		0.386827	
Case	6,665		4,756		3,610		2,211	

Table 3 ... 2

Regression Equation of Ln (WAGE) with Predicted Hours Worked (PRED)

	Municipal				Non-Municipal			
	Male		Female		Male		Female	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
1989								
One	6.622510	6.099	5.376880	10.863	12.860900	10.501	3.617050	7.251
Age	0.090034	9.301	0.088197	11.963	0.029286	2.817	0.080907	9.523
Age2	-0.000854	-8.552	-0.000858	-9.123	-0.000386	-3.502	-0.000859	-8.228
Yearedc	0.062268	4.233	0.098719	11.309	-0.006504	-3.480	0.140811	18.856
Marry	0.105744	3.511	0.034658	0.855	0.161304	4.710	0.059205	1.617
Others	0.050667	0.652	-0.032219	-0.639	0.017336	0.222	-0.025981	-0.431
Mhate	-0.023207	-1.471	-0.007532	-1.178	-0.116081	-6.443	0.021650	3.179
R - squared	0.559744		0.630337		0.469452		0.518442	
1980								
One	4.727830	11.879	5.392180	19.315	6.353120	5.710	2.959250	1.674
Age	0.086414	19.385	0.071471	14.181	0.053780	9.985	0.048515	4.265
Age2	-0.000811	-16.284	-0.000701	-11.110	-0.000577	-9.795	-0.000487	-4.250
Yearedc	0.082395	12.516	0.096652	17.863	0.067628	2.483	0.174234	4.037
Marry	0.121463	7.063	0.053807	2.575	0.147311	5.064	0.092674	2.119
Others	0.051378	1.195	-0.096219	-3.232	-0.014931	-0.228	-0.102015	-2.426
Mhate	0.003939	0.676	-0.009450	-2.867	-0.015597	-0.940	0.035618	1.409
R - squared	0.484748		0.664401		0.438956		0.580917	

Table 3.3.1

Probit Estimation of Being Employee (Use for Correction of Selectivity Bias)

	Municipal				Non-Municipal			
	Male		Female		Male		Female	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
1989								
One	-2.076150	-11.777	-2.269750	-14.257	-0.665930	-3.954	-1.406900	-8.820
Age	0.174060	17.196	0.130918	14.297	0.090150	9.433	0.078499	8.557
Age2	-0.002349	-18.448	-0.001899	-15.349	-0.001378	-11.316	-0.001191	-9.684
Yearedc	0.014426	2.304	0.052591	11.120	0.047632	6.527	0.094928	13.510
Marry	0.155780	2.643	-0.480585	-10.202	-0.100693	-0.183	-0.438848	-8.443
Others	-0.141633	-1.011	0.064781	0.816	0.265051	2.020	0.058910	0.687
Hyearedc	-0.028654	-4.893	0.006213	1.451	-0.038936	-4.746	-0.037369	-4.954
Hown	-1.761200	-33.544	-0.937112	-19.260	-2.195500	-51.666	-1.389760	-33.636
Hnowork	-0.856316	-15.459	-0.442434	-9.307	-1.513260	-24.483	-1.028350	-17.071
Age15-59	-0.031691	-2.703	-0.007348	-0.689	0.006701	0.515	-0.022327	-1.600
Pseudo R2	0.785368		0.75285628		0.874735		0.879326	
Case	5,358		6,652		9,436		10,806	
1980								
One	-2.146510	-21.869	-2.467900	-26.612	-0.951728	-7.415	-1.102240	-9.531
Age	0.162103	28.500	0.129384	23.494	0.084405	11.315	0.055194	8.507
Age2	-0.002149	-30.792	-0.001854	-24.647	-0.001216	-12.920	-0.000794	-9.610
Yearedc	0.020222	5.736	0.048327	17.265	0.085617	14.684	0.075857	13.355
Marry	0.181063	5.059	-0.680074	-23.025	-0.061318	-1.313	-0.496309	-11.271
Others	0.189660	2.327	-0.198717	-4.088	0.064391	0.631	0.005982	0.092
Hyearedc	-0.027047	-8.193	0.017693	6.858	-0.044036	-6.572	-0.031890	-5.521
Hown	-1.693250	-59.377	-0.771820	-28.174	-2.392920	-69.725	-1.623450	-46.839
Hnowork	-0.793705	-24.478	-0.246602	-8.352	-1.673220	-33.302	-1.051090	-21.668
Age15-59	-0.013130	-2.445	0.001298	0.255	0.028039	3.026	-0.001064	-0.109
Pseudo R2	0.782237		0.778880		0.899026		0.896667	
Case	16,146		20,256		19,708		22,200	

Table 3.3.7

Regression Equation of ln (WAGE) with Selectivity Bias Correction

	Municipal				Non-Municipal			
	Male		Female		Male		Female	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
1969								
One	5.103670	39.895	5.211480	32.253	5.038160	43.891	5.299330	42.428
Age	0.098093	14.126	0.077362	9.616	0.080062	11.829	0.061928	8.880
Age2	-0.000906	-10.136	-0.000666	-5.884	-0.000822	-9.386	-0.000669	-6.960
Yearedc	0.083722	36.058	0.103104	34.091	0.111913	35.541	0.116797	30.551
Marry	0.119919	4.339	0.112869	3.782	0.097828	2.873	0.031140	0.882
Others	0.044666	0.577	-0.026940	-0.578	-0.096848	-1.254	-0.028555	-0.467
Lambda	-0.028202	-0.894	-0.158526	-3.262	-0.017214	-0.824	-0.056327	-1.845
R - squared	0.558994		0.632029		0.459948		0.516140	
1980								
One	5.107480	67.066	4.823710	49.027	5.215950	64.797	5.425470	69.546
Age	0.080038	19.987	0.073600	15.733	0.059208	12.727	0.034253	7.676
Age2	-0.000738	-14.661	-0.000694	-10.572	-0.000621	-10.566	-0.000355	-5.962
Yearedc	0.077986	55.481	0.108561	58.556	0.094179	43.108	0.113897	48.591
Marry	0.113297	6.482	0.121664	6.037	0.169958	6.583	0.039383	1.591
Others	0.0458141	1.065	-0.088493	-2.963	0.019837	0.341	-0.070605	-1.917
Lambda	-0.0421305	-2.305	-0.080578	-2.714	0.035372	2.497	0.009509	0.552
R - squared	0.485123		0.664342		0.439787		0.580957	

Table 3.3.1
The Means of Selected Variables

	Municipal		Non-Municipal	
	Male	Female	Male	Female
1989				
Dependent Variable				
Tothour	48.959	49.055	51.961	49.692
Lnwage	8.040	7.712	7.383	7.147
Independent Variable				
One	1.000	1.000	1.000	1.000
Age	33.033	30.125	31.066	28.451
Age2	1207.600	1004.000	1087.100	918.590
Yearedc	8.727	9.086	6.291	6.488
Marry	0.629	0.412	0.643	0.518
Others	0.018	0.083	0.026	0.083
Lambda	0.771	0.899	0.803	1.230
1980				
Dependent Variable				
Tothour	48.309	48.803	51.704	51.610
Lnwage	7.536	7.169	7.108	6.728
Independent Variable				
One	1.000	1.000	1.000	1.000
Age	33.200	29.001	32.090	29.734
Age2	1221.900	934.730	1162.300	1024.800
Yearedc	7.999	8.353	6.057	5.480
Marry	0.652	0.369	0.662	0.471
Others	0.023	0.074	0.025	0.115
Lambda	0.629	1.065	0.855	1.381

Table 3.4.2
Wage Difference Decomposition (corrected for selectivity bias)

Source of Difference	Municipal		Non-municipal	
	%(1-Wf/Wm)	Percent	%(1-Wf/Wm)	Percent
1989				
Total wage difference	28.00	100.00	20.95	100.00
Due to age	9.58	34.23	6.85	32.67
Due to education	-3.04	-10.87	-2.23	-10.62
Due to marital status	2.28	8.15	1.76	8.42
Other sources	19.18	68.49	14.57	69.53
1980				
Total wage difference	30.71	100.00	31.62	100.00
Due to age	11.68	38.05	5.27	16.67
Due to education	-2.81	-9.14	5.29	16.73
Due to marital status	2.93	9.54	3.02	9.54
Other sources	18.90	61.55	18.05	57.07

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APPENDIX

The Labor Force Survey in Thailand, which is the main data source used in this paper was conducted by the National Statistical Office (NSO) since 1963. Beginning in 1971, two rounds of the survey were conducted annually. The first round enumeration was held from January to March which was coincide with the non-agricultural season and the second round was held from July to September which was coincide with the agricultural season. Since 1984, another round of the survey has been conducted in May. All Labor Force Surveys are nationwide which coverage includes both urban and rural areas.

The definition used to count persons in the labor force changes slightly over time. According to the 1980 definition, all persons 11 years and older who were employed and unemployed were included in the labor force. Employed persons were all persons 11 years of age and over who: (1) worked for wages, salaries, profits, dividends or any other kind of payment during the survey week, or (2) did not work at all but had jobs or businesses from which they were temporarily absent because of illness, vacation or holiday, or for other reasons, or persons who did not work at all during the survey week and were not looking for work because they were waiting to be called in for new job assignments or waiting to be recalled to their former job within 30 days from the day of interview, or (3) worked without pay in enterprises or on farms owned or operated by household heads or members to whom they were related by kinship or marriage or through adoption, and worked at least 20 hours during the survey week, or worked less than 20 hours but wanted to work more. Unemployed persons were those persons 11 years of age and over, who during the survey week did not work at all, but wanted to work and were able to do so. Persons in this category include those who, during the survey week: (1)

[illegible] work at all but were looking for work, or (2) did not work and were not looking for work because of illness, but would have been looking for work had they not been ill, or (3) did not work at all and were not looking for work because of the belief that no work was available.

In the 1989 definition, total labor force were all persons 13 years of age and over, who during the survey week were either in the current labor force or inactive seasonally labor force. Except for the difference in age range, current labor force in 1989 is comparable to the definition of labor force used in 1980, namely current labor force include all persons 13 years of age and over who, during the survey week, were either employed or unemployed. However there were some minor modifications as follows. Firstly, in the 1989 definition, employed persons included those who worked for at least one hour without pay in business enterprises or on farms owned or operated by household heads or members, where as in the 1980 definition, persons who worked without pay must worked at least 20 hours during the survey week, or worked less than 20 hours but wanted to work more. Secondly, those who were waiting to be called up to new job assignment were classified as employed in the 1980 definition, but were classified as unemployed in the 1989 definition, except those who were waiting to be recalled to their former job within 30 days would be classified as employed persons.

However, these modifications did not significantly alter the labor force participation rate, but the inclusion of seasonally inactive labor force did, especially the labor force participation rate of rural population. In 1980, those who were waiting for the appropriate farming season were not included in the labor force. But in 1989, persons 13 years of age and over, who usually worked without pay on farms, or in business enterprises owned or operated by the

head of the household or any other member of the household, but who during the survey week were economically inactive because of waiting for the appropriate season would be included in the labor force. In the second round of 1989 survey, seasonally inactive labor force constitutes about 0.1 and 6.1 percent of total labor force in urban and rural areas respectively. The effect of changing definition on the labor force participation rate is more significant among female and the young population than among male and adult population.

APPENDIX II

Table 2.1.1 a
Population Aged Above 11 Years Classified By Sex and Residential Areas, in 1971-1989

(In Thousands)

Year	Municipal			Non-Municipal		
	Total	Male	Female	Total	Male	Female
1971	3,494.4	1,713.0	1,781.4	19,482.2	9,642.2	9,840.1
1972	3,602.2	1,765.0	1,837.2	19,963.7	9,883.5	10,080.2
1973	3,857.7	1,903.5	1,954.2	21,308.5	10,503.5	10,805.0
1974	3,990.7	1,970.5	2,020.2	22,057.2	10,849.1	11,208.1
1975	4,117.6	2,033.4	2,084.1	22,656.4	11,145.7	11,510.7
1976	4,253.0	2,101.3	2,151.7	23,288.5	11,456.0	11,832.5
1977	4,741.1	2,341.0	2,400.1	24,281.7	12,108.2	12,173.5
1978	4,917.1	2,426.7	2,490.4	24,854.6	12,399.9	12,454.7
1979	5,100.1	2,515.0	2,585.1	25,393.6	12,672.9	12,720.7
1980	5,425.7	2,671.4	2,754.3	25,787.9	12,872.5	12,915.4
1981	5,318.3	2,623.7	2,694.6	28,190.0	14,112.6	14,077.4
1982	5,505.8	2,714.7	2,791.1	28,955.9	14,498.0	14,457.9
1983	5,680.2	2,798.3	2,881.9	29,716.5	14,885.6	14,830.9
1984	5,787.4	2,848.5	2,938.9	30,355.7	15,209.5	15,146.2
1985	6,239.3	3,071.7	3,167.6	30,857.9	15,466.4	15,391.5
1986	7,478.2	3,672.3	3,805.9	30,518.7	15,318.7	15,200.0
1987	7,445.4	3,645.6	3,799.8	32,084.3	16,068.2	16,016.1
1988	7,680.1	3,751.9	3,928.2	32,962.4	16,508.0	16,454.4
1989 *	7,439.2	3,628.6	3,810.6	31,464.8	15,744.8	15,720.0

Source : Report of the Labor Force Survey, Round 2 (1971-1987, 1989) Round 3 (1988) National Statistical Office, Office of the Prime Minister

Note * : In 1989,figures shown the number of population aged above 13 years.

Table 2.1.2 a
Percentage Distribution of Population
Classified By Age and Residential Areas

(in percent)

Age	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number(in Thousand)	19,530.0	19,372.6	3,810.3	3,628.3	15,719.7	15,744.3
13-14	6.2	6.5	5.0	5.4	6.5	6.7
15-24	30.2	31.6	27.4	28.3	30.9	32.3
25-34	23.7	24.1	27.4	27.7	22.8	23.3
35-39	8.9	8.9	9.9	10.0	8.6	8.6
40-49	12.4	12.4	12.6	12.8	12.3	12.3
50-59	9.5	8.8	9.0	8.6	9.6	8.9
60+	9.1	7.7	8.6	7.3	9.3	7.8
1980						
Total Number(in Thousand)	15,669.1	15,542.8	2,754.0	2,670.8	12,915.1	12,872.0
11-14	15.0	15.8	12.5	13.0	15.5	16.3
15-24	28.4	28.3	29.8	29.8	28.1	28.0
25-34	20.5	20.5	24.7	25.7	19.7	19.5
35-39	8.3	8.5	7.8	8.1	8.5	8.6
40-49	11.9	12.2	10.7	10.8	12.1	12.5
50-59	7.7	7.6	7.0	6.7	7.9	7.8
60+	8.1	7.0	7.5	6.0	8.3	7.2

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey(Round 2), May 1989
National Statistical Office, Office of the Prime Minister

Table 2.1.3 a
Percentage Distribution of Population Aged 25-60 Years
Classified by Educational Level and Residential Areas

(in percent)

Education	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number(in Thousand)	10,714.3	10,560.7	2,257.4	2,154.1	8,456.9	8,406.6
Non+Less Than Primary	13.9	8.3	10.1	4.8	14.9	9.1
Primary	73.5	71.6	53.7	45.7	78.8	78.3
Secondary + Vocation	6.7	12.9	19.6	31.4	3.2	8.2
University + Teacher Training	5.8	7.1	16.2	17.8	3.1	4.3
Other	0.1	0.1	0.3	0.4	0.0	0.1
1980						
Total Number(in Thousand)	7,735.1	7,720.8	1,408.5	1,388.1	6,326.6	6,332.7
Non+Less Than Primary	21.1	12.1	18.0	9.5	21.8	12.7
Primary	71.9	75.3	56.4	51.7	75.3	80.5
Secondary + Vocation	4.3	8.4	16.3	27.3	1.6	4.3
University + Teacher Training	2.6	4.0	8.8	10.7	1.3	2.5
Other	0.1	0.2	0.5	0.8	0.1	0.1

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey(Round 2), May 1989
National Statistical Office, Office of the Prime Minister

Table 2.1.4 a
Percentage Distribution of Population Aged 25-60 Years
Classified by Marital Status and Residential Areas

(in percent)

Marital Status	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total Number(in Thousand)	10,714.2	10,560.6	2,257.3	2,154.0	8,456.9	8,406.6
Never Married	11.6	13.4	22.9	22.0	8.6	11.2
Married	77.0	83.6	65.7	74.6	80.0	85.9
Widowed	7.1	1.3	5.7	1.3	7.5	1.4
Divorced	1.6	0.7	2.1	0.8	1.5	0.7
Separated	2.7	1.0	3.7	1.3	2.4	0.9
1980						
Total Number(in Thousand)	7,731.9	7,715.2	1,408.3	1,387.8	6,323.6	6,327.4
Never Married	10.7	10.7	22.6	21.9	8.1	8.2
Married	78.0	86.5	65.4	75.2	80.9	89.0
Widowed	7.7	1.6	7.1	1.0	7.9	1.8
Divorced	1.0	0.3	1.4	0.4	0.9	0.2
Separated	2.5	1.0	3.6	1.5	2.3	0.8

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey(Round 2), May 1989
National Statistical Office, Office of the Prime Minister

Table 2.2.1 a
Classification of Employment by Industry

(in thousands)

Industry	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total	11,909.0	13,363.5	2,147.2	2,665.6	9,761.8	12,697.9
Agriculture	6,696.6	8,887.5	69.9	120.3	6,626.7	8,767.2
Mining	6.7	31.9	0.3	3.8	6.4	28.1
Manufacturing	1,677.7	1,692.2	450.4	590.8	1,227.3	1,101.4
Construction	147.0	958.6	30.0	201.5	117.0	757.1
Electricity	16.2	100.5	11.8	48.5	4.4	52.0
Commerce	1,686.3	1,481.3	708.6	757.7	977.7	723.6
Transport	71.1	646.5	40.8	290.2	30.3	356.3
Service	1,595.2	1,556.3	823.7	644.4	771.5	911.9
Other	11.3	8.0	11.3	8.0	-	-
1980						
Total	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
Agriculture	7,893.9	8,048.7	43.5	68.7	7,850.4	7,980.0
Mining	8.8	27.7	0.1	3.1	8.7	24.6
Manufacturing	752.7	1,036.0	272.2	410.5	480.5	625.5
Construction	61.6	374.2	18.2	106.2	43.4	268.0
Electricity	5.5	54.2	4.3	27.2	1.2	27.0
Commerce	1,034.5	881.3	475.1	515.9	559.4	365.4
Transport	30.2	425.7	16.5	187.8	13.7	237.9
Service	869.2	1,017.6	514.0	436.7	355.2	580.9
Other	0.2	0.3	0.2	0.3	-	-

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

Table 2.3.1 a
Classification of Employment by Work Status

(in thousands)

Status	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total	11,909.0	15,363.5	2,147.2	2,665.6	9,761.8	12,697.9
Employer	74.2	276.9	38.5	142.7	35.7	134.2
Public Employee	636.8	1,192.3	317.0	476.9	319.8	715.4
Private Employee	2,907.2	4,186.2	971.4	1,255.4	1,935.8	2,930.8
Own-Account Worker	2,347.7	6,244.9	391.4	573.3	1,956.3	5,671.6
Unpaid Family Worker	5,943.0	3,463.0	429.0	217.2	5,514.0	3,245.8
1980						
Total	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
Employer	56.7	224.2	22.4	83.7	34.3	140.5
Public Employee	346.1	844.5	173.5	326.0	172.6	518.5
Private Employee	1,467.3	2,259.4	512.2	809.2	955.1	1,450.2
Own-Account Worker	1,796.9	4,990.5	311.7	396.0	1,485.2	4,594.5
Unpaid Family Worker	6,990.0	3,547.3	324.5	141.5	6,665.5	3,405.8

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

Table 2.3.2 a

CLASSIFICATION OF EMPLOYMENT BY WORK STATUS, GENDER AND BROAD AGE GROUP (MUNICIPAL AREAS)

	15-24	25-34	35-44	45-54	55-64	65+	Total
1989	1057932	1676041	1072595	597640	250318	53086	4707612
Male	539514	937076	602273	353060	158733	30732	2621388
Employer	0.24	4.31	8.06	9.02	8.57	9.21	5.28
Public Employee	4.14	18.50	23.73	26.46	25.18	0.00	18.01
Private Employee	73.00	53.60	39.42	30.73	24.16	13.81	49.00
Own-Account Worker	8.04	16.74	24.74	32.17	35.88	71.93	20.67
Unpaid Family Worker	14.58	6.86	4.05	1.62	6.21	5.05	7.04
Female	518418	738965	470322	244580	91585	22354	2086224
Employer	0.28	2.91	3.44	3.62	0.49	8.59	2.41
Public Employee	5.57	18.45	20.04	22.24	9.46	0.00	15.46
Private Employee	74.38	49.51	30.03	18.38	17.08	12.79	45.83
Own-Account Worker	4.48	13.99	28.01	32.91	48.00	53.73	18.92
Unpaid Family Worker	15.29	15.15	18.48	22.85	24.96	24.89	17.37
1980	753896	1130992	622690	392223	154418	55028	3109247
Male	396848	656551	361476	231379	94675	33971	1774900
Employer	0.40	3.99	8.23	6.88	8.65	6.45	4.72
Public Employee	7.57	20.72	25.04	23.07	19.10	0.94	18.50
Private Employee	70.25	50.38	34.44	27.97	23.45	23.59	46.71
Own-Account Worker	5.99	17.28	29.13	39.36	44.50	61.84	22.35
Unpaid Family Worker	15.79	7.63	3.16	2.72	4.29	7.17	7.72
Female	357048	474441	261214	160844	59743	21057	1334347
Employer	0.20	1.52	3.29	2.29	2.69	3.12	1.69
Public Employee	8.63	18.27	14.17	8.63	9.26	0.53	13.04
Private Employee	64.07	39.36	22.33	15.50	11.14	8.56	38.01
Own-Account Worker	5.59	18.40	34.38	45.92	49.73	58.37	23.45
Unpaid Family Worker	21.52	22.45	25.82	27.66	27.17	29.42	23.81

Table 2.3.2 b

CLASSIFICATION OF EMPLOYMENT BY WORK STATUS, GENDER AND BROAD AGE GROUP (NONMUNICIPAL AREAS)

	15-24	25-34	35-44	45-54	55-64	65+	Total
1989	7160814	6094376	4161300	2960900	1569419	514283	22358092
Male	3916073	3455916	2327574	1612178	937154	330198	12579093
Employer	0.34	1.04	2.19	2.98	2.07	6.63	1.51
Public Employee	1.54	8.05	7.52	7.04	3.70	0.00	5.26
Private Employee	34.14	32.16	22.95	15.25	12.84	6.98	26.80
Own-Account Worker	11.95	41.77	62.29	72.68	79.84	82.39	44.15
Unpaid Family Worker	52.03	16.99	5.05	2.05	1.55	4.00	22.28
Female	3244741	2638460	1833726	1248722	629265	184085	9778999
Employer	0.03	0.38	0.96	0.86	0.06	0.82	0.42
Public Employee	1.07	6.30	3.66	1.99	0.20	0.00	3.01
Private Employee	29.80	25.38	16.83	13.08	10.45	10.08	22.42
Own-Account Worker	8.55	19.32	31.63	36.47	49.29	59.89	22.94
Unpaid Family Worker	60.54	48.62	46.91	47.60	40.00	29.21	51.21
1980	6032514	4767732	3707578	2523822	1250570	416825	18699041
Male	3037262	2474780	1922126	1338173	692056	260417	9724814
Employer	0.13	1.50	2.63	2.10	1.84	3.10	1.45
Public Employee	3.18	7.94	7.08	4.64	4.28	0.00	5.36
Private Employee	18.37	17.21	13.64	9.61	6.47	4.21	14.71
Own-Account Worker	7.45	45.78	69.20	81.32	85.51	86.82	47.26
Unpaid Family Worker	70.87	27.56	7.44	2.34	1.90	5.87	31.23
Female	2995252	2292952	1785452	1185649	558514	156408	8974227
Employer	0.10	0.56	0.59	0.24	0.60	1.15	0.38
Public Employee	1.80	3.52	1.50	0.71	0.39	0.00	1.92
Private Employee	13.89	10.04	8.34	7.60	5.72	6.32	10.33
Own-Account Worker	5.23	15.70	20.50	27.19	35.74	49.01	16.51
Unpaid Family Worker	78.98	70.18	69.06	64.25	57.55	43.52	70.86

Table 2.4.1 a
Classification of Employment by Occupation

(in thousands)

Occupation	Whole Kingdom		Municipal		Non-Municipal	
	Female	Male	Female	Male	Female	Male
1989						
Total	11,908.2	15,363.5	2,147.2	2,665.6	9,761.8	12,697.9
1.Professional, Technical	486.7	470.6	253.6	200.4	233.1	270.2
2.Administrative,Executive and Managerial	94.9	334.0	69.3	209.0	25.6	125.0
3.Clerical	428.1	381.5	299.1	236.8	129.0	144.7
4.Sales	1,733.1	1,218.3	673.8	548.9	1,059.7	669.4
5.Farmers, Fishermen, Hunters Loggers, Miners, Quarrymen	6,686.4	8,842.6	70.6	120.9	6,615.8	8,721.7
6.Workers in Transport and Communication Occupation	36.4	776.6	16.5	352.5	19.9	424.1
7.Craftsmen, Production-Process	1,867.9	2,846.4	417.8	757.0	1,450.1	2,089.4
8.Service, Sport and Recreation	567.6	488.1	339.3	235.3	228.3	253.1
9.Other	6.8	4.3	6.8	4.3	-	-
1980						
Total	10,657.4	11,866.3	1,344.5	1,756.7	9,312.9	10,109.6
1.Professional, Technical	263.5	296.0	132.0	112.2	131.5	183.8
2.Administrative,Executive and Managerial	52.4	242.1	40.5	148.4	11.9	93.7
3.Clerical	167.4	223.7	117.1	147.3	50.3	76.4
4.Sales	1,118.4	759.0	511.1	414.7	607.3	344.3
5.Farmers, Fishermen, Hunters Loggers, Miners, Quarrymen	7,909.0	8,050.6	43.5	71.8	7,865.5	7,978.8
6.Workers in Transport and Communication Occupation	17.2	472.7	8.7	213.3	8.5	259.4
7.Craftsmen, Production-Process	828.8	1,521.5	277.1	511.1	551.7	1,010.4
8.Service, Sport and Recreation	300.0	299.6	214.2	137.3	85.8	162.3
9.Other	-	-	-	-	-	-

Source : Report of the Labor Force Survey, July-September 1980
: Report of the Labor Force Survey (Round 2), May 1989
National Statistical Office, Office of the Prime Minister.

TABLE 2.5.1 a

CLASSIFICATION OF EMPLOYMENT BY AGE, GENDER AND HOURS WORKED (WHOLE KINGDOM) (in thousand)

Hours Work	MALE							FEMALE						
1989	TOTAL	13-14	15-24	25-34	35-44	45-54	55+	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
less than 13	190.9	2.3	59.7	43.8	24.6	15.7	44.9	229.2	5.9	86.1	41.1	37.4	34.2	24.4
20-29	479.6	16.7	150.7	99.4	77.1	52.1	83.5	630.5	13.9	185.8	150.2	94.1	92.1	94.4
30-39	1,499.0	26.5	320.1	427.7	318.0	215.7	191.0	1,553.8	36.0	331.0	494.3	315.6	214.8	162.2
40-49	3,633.9	72.0	1,033.5	1,136.2	642.1	446.5	303.7	3,181.4	111.7	951.6	955.1	559.2	386.5	217.3
50-59	4,428.7	102.6	1,325.4	1,209.8	846.9	569.4	374.6	2,964.6	89.0	920.0	818.8	589.9	345.3	201.5
60-69	1,982.2	53.8	525.3	550.2	398.0	255.2	199.7	1,093.9	27.2	374.7	278.8	218.9	121.8	72.5
70-79	2,214.0	25.7	524.7	615.9	479.7	350.3	217.7	1,435.1	47.9	445.5	343.3	309.2	184.1	105.3
more than 80	389.8	1.3	75.2	138.4	101.6	42.3	31.0	313.9	6.6	83.8	88.8	67.6	43.4	23.7
Total	14,818.3	300.9	4,014.7	4,221.4	2,888.0	1,947.3	1,446.1	11,402.4	338.1	3,378.6	3,170.5	2,191.9	1,422.2	901.1
1980	TOTAL	11-14	15-24	25-34	35-44	45-54	55+	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
less than 19	212.0	13.8	54.7	45.9	35.7	32.1	29.8	265.3	9.1	67.6	70.3	53.4	33.1	31.7
20-29	328.9	21.1	70.3	78.9	59.1	44.0	55.5	401.4	13.4	91.9	100.9	86.2	57.4	51.7
30-39	1,211.1	46.6	257.1	345.4	253.1	160.5	148.4	1,235.6	52.0	289.0	348.0	239.4	164.5	142.7
40-49	2,354.3	83.0	666.7	688.2	412.9	282.7	220.8	2,311.5	102.2	710.1	602.6	429.1	297.8	169.7
50-59	2,866.9	153.8	915.8	650.5	518.3	385.7	242.8	2,955.1	171.2	915.8	714.6	578.7	378.3	196.5
60-69	1,482.3	49.2	433.3	383.7	317.8	186.0	112.3	2,112.3	60.7	390.6	274.7	1,211.3	121.1	53.8
70-79	2,856.3	111.4	865.0	736.7	549.0	379.9	214.2	2,097.8	113.0	745.0	518.3	364.7	237.0	119.9
more than 80	412.3	8.6	96.8	130.8	88.3	59.3	28.6	231.0	10.0	67.0	71.4	45.4	28.1	9.1
Total	11,723.9	487.6	3,359.6	3,060.0	2,234.1	1,530.2	1,052.4	11,609.9	531.5	3,277.0	2,700.8	3,008.2	1,317.2	775.2

TABLE 2.5.1 b

CLASSIFICATION OF EMPLOYMENT BY AGE, GENDER AND HOURS WORKED (MUNICIPAL AREAS) (in thousand)

Hours Work	MALE							FEMALE						
1989	TOTAL	13-14	15-24	25-34	35-44	45-54	55+	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
Less than 19	24.0	0.0	5.8	9.2	3.7	1.6	3.7	24.0	0.4	4.0	5.6	5.6	4.0	4.4
20-29	41.8	0.0	12.2	10.2	6.2	4.7	8.5	51.2	0.3	9.2	11.7	12.7	12.4	4.9
30-39	331.0	0.0	24.6	112.6	105.0	55.9	32.8	330.2	1.2	34.2	135.3	89.6	50.2	19.6
40-49	1,024.4	5.7	205.2	416.6	221.3	122.8	52.6	734.2	5.6	191.3	298.7	140.4	67.6	30.6
50-59	475.1	2.9	117.4	165.7	96.6	58.4	34.1	319.5	8.0	78.5	113.5	71.2	32.3	16.0
60-69	212.7	1.1	50.5	65.6	50.9	28.7	15.9	144.0	3.1	41.2	37.6	37.1	17.4	7.6
70-79	335.1	3.6	76.1	97.2	76.5	53.8	27.9	333.6	3.5	102.0	84.8	79.0	43.4	20.9
More than 80	139.0	0.0	23.6	50.1	32.8	20.0	12.5	133.2	3.3	40.5	36.5	30.1	14.7	8.1
Total	2,583.0	13.3	515.6	927.2	593.0	346.0	187.9	2,069.9	25.5	501.0	723.6	465.7	242.1	112.1
1980	TOTAL	11-14	15-24	25-34	35-44	45-54	55+	TOTAL	11-14	15-24	25-34	35-44	45-54	55+
less than 19	20.8	0.7	3.6	6.4	4.9	2.1	3.2	19.2	0.4	3.1	5.7	5.8	2.5	1.7
20-29	35.7	0.8	5.9	12.1	7.0	5.8	4.2	45.0	1.2	7.9	15.1	9.6	6.2	5.1
30-39	263.2	1.1	33.8	102.0	66.4	40.1	19.9	233.6	1.9	43.3	98.2	49.3	25.6	15.3
40-49	674.6	5.8	172.7	276.8	113.6	71.4	34.3	402.3	4.4	120.7	162.1	64.4	35.2	15.5
50-59	247.1	3.1	65.7	84.2	43.3	32.1	18.7	172.0	4.4	43.8	53.0	35.3	24.1	11.5
60-69	124.5	1.0	31.5	38.5	28.3	16.6	8.5	96.0	1.8	28.2	26.2	22.7	12.0	5.1
70-79	234.1	2.0	44.5	73.8	54.7	36.3	22.8	240.4	9.6	66.3	67.0	45.4	35.0	17.2
More than 80	121.4	1.7	21.1	38.1	28.7	18.8	13.0	113.9	3.4	32.9	31.8	22.6	16.6	6.5
Total	1,721.3	16.2	378.7	631.9	346.8	223.0	124.6	1,322.4	27.0	346.1	459.0	255.1	157.2	78.0

TABLE 2.5.1 b

CLASSIFICATION OF EMPLOYMENT BY AGE, GENDER AND HOURS WORKED (MUNICIPAL AREAS) (in thousand)

Hours Work	MALE							FEMALE						
1989	TOTAL	13-14	15-24	25-34	35-44	45-54	55+	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
less than 19	24.0	0.0	5.8	9.2	3.7	1.6	3.7	24.0	0.4	4.0	5.6	5.6	4.0	4.4
20-29	41.8	0.0	12.2	10.2	6.2	4.7	8.5	51.2	0.3	9.2	11.7	12.7	12.4	4.9
30-39	331.0	0.0	24.6	112.6	105.0	55.9	32.8	330.2	1.2	34.2	135.3	89.6	50.2	19.6
40-49	1,024.4	5.7	205.2	416.6	221.3	122.8	52.6	734.2	5.6	191.3	298.7	140.4	67.6	30.6
50-59	475.1	2.9	117.4	165.7	96.6	58.4	34.1	319.5	8.0	78.5	113.5	71.2	32.3	16.0
60-69	212.7	1.1	50.5	65.6	50.9	28.7	15.9	144.0	3.1	41.2	37.6	37.1	17.4	7.6
70-79	335.1	3.6	76.1	97.2	76.5	53.8	27.9	333.6	3.5	102.0	84.8	79.0	43.4	20.9
more than 80	139.0	0.0	23.6	50.1	32.8	20.0	12.5	133.2	3.3	40.5	36.5	30.1	14.7	8.1
Total	2,583.0	13.3	515.6	927.2	593.0	346.0	187.9	2,069.9	25.5	501.0	723.6	465.7	242.1	112.1
1980	TOTAL	11-14	15-24	25-34	35-44	45-54	55+	TOTAL	11-14	15-24	25-34	35-44	45-54	55+
less than 19	20.8	0.7	3.6	6.4	4.9	2.1	3.2	19.2	0.4	3.1	5.7	5.8	2.5	1.7
20-29	35.7	0.8	5.9	12.1	7.0	5.8	4.2	45.0	1.2	7.9	15.1	9.6	6.2	5.1
30-39	263.2	1.1	33.8	102.0	66.4	40.1	19.9	233.6	1.9	43.3	98.2	49.3	25.6	15.3
40-49	674.6	5.8	172.7	276.8	113.6	71.4	34.3	402.3	4.4	120.7	162.1	64.4	35.2	15.5
50-59	247.1	3.1	65.7	84.2	43.3	32.1	18.7	172.0	4.4	43.8	53.0	35.3	24.1	11.5
60-69	124.5	1.0	31.5	38.5	28.3	16.6	8.5	96.0	1.8	28.2	26.2	22.7	12.0	5.1
70-79	234.1	2.0	44.5	73.8	54.7	36.3	22.8	240.4	9.6	66.3	67.0	45.4	35.0	17.2
more than 80	121.4	1.7	21.1	38.1	28.7	18.8	13.0	113.9	3.4	32.9	31.8	22.6	16.6	6.5
Total	1,721.3	16.2	378.7	631.9	346.8	223.0	124.6	1,322.4	27.0	346.1	459.0	255.1	157.2	78.0

TABLE 2.5.1 c

CLASSIFICATION OF EMPLOYMENT BY AGE, GENDER AND HOURS WORKED (NON-MUNICIPAL AREAS) (in thousand)

Hours Work	MALE							FEMALE						
1,989.0	TOTAL	13-14	15-24	25-34	35-44	45-54	55+	TOTAL	13-14	15-24	25-34	35-44	45-54	55+
less than 19	167.0	2.3	53.9	34.6	20.9	14.1	41.2	205.2	5.6	82.2	35.5	31.8	30.2	20.0
20-29	437.7	16.7	138.5	89.2	70.9	47.4	75.0	579.4	13.6	176.5	138.6	81.5	79.7	89.5
30-39	1,168.0	26.5	295.5	315.1	213.0	159.8	158.1	1,223.6	34.7	296.8	359.0	226.0	164.5	142.6
40-49	2,609.6	66.3	828.3	719.6	420.7	323.6	251.1	2,447.2	106.1	760.3	656.4	418.8	318.9	186.7
50-59	3,953.6	99.8	1,208.0	1,044.0	750.2	511.1	340.6	2,645.1	81.0	841.5	705.4	518.7	313.0	185.5
60-69	1,769.5	52.6	474.8	484.7	347.1	226.5	183.7	949.9	24.1	333.5	241.2	181.8	104.4	64.9
70-79	1,878.9	22.0	448.6	518.7	403.3	296.5	189.8	1,101.5	44.4	343.5	258.6	230.2	140.7	84.2
more than 80	250.9	1.3	51.5	88.3	68.8	22.3	18.6	180.6	3.3	43.3	52.2	37.5	28.7	15.6
Total	12,235.3	287.5	3,499.1	3,294.2	2,295.0	1,601.3	1,258.2	9,332.5	312.7	2,877.7	2,446.9	1,726.3	1,180.0	789.0
1980	TOTAL	11-14	15-24	25-34	35-44	45-54	55+	TOTAL	11-14	15-24	25-34	35-44	45-54	55+
less than 19	191.1	13.0	51.1	39.5	30.8	30.0	26.7	246.1	8.7	64.5	64.6	47.7	30.7	30.0
20-29	293.2	20.3	64.4	66.8	52.1	38.2	51.3	356.3	12.2	84.1	85.8	76.5	51.2	46.6
30-39	947.9	45.6	223.3	243.4	186.7	120.4	128.5	1,002.0	50.0	245.7	249.8	190.1	138.9	127.4
40-49	1,679.7	77.3	494.0	411.4	299.2	211.3	186.5	1,909.2	97.8	589.4	440.5	364.7	262.6	154.2
50-59	2,619.8	150.7	850.1	566.3	475.0	353.7	224.1	2,783.1	166.9	872.0	661.6	543.4	354.2	185.0
60-69	1,357.8	48.2	401.7	345.1	289.5	169.4	103.8	2,016.2	58.9	362.5	248.5	1,188.6	109.0	48.7
70-79	2,622.2	109.3	820.6	663.0	494.3	343.6	191.4	1,857.5	103.4	678.7	451.3	319.3	202.0	102.8
more than 80	230.9	7.0	75.7	92.6	59.6	40.5	15.6	117.1	6.6	34.1	39.7	22.7	11.5	2.6
Total	10,002.6	471.4	2,980.8	2,428.1	1,887.3	1,307.2	927.8	10,287.5	504.5	2,930.9	2,241.7	2,753.1	1,169.0	697.2

Appendix III

Chapter 2 of the announcement of the Ministry of Interior concerning labour protection, April 16, 1972

Employment of Women

13. No employer shall employ any woman in the following:
(1) Cleaning of machinery or motors in motion;
(2) Work involving the use of scaffolding in construction higher than ten meters from the ground;
(3) Operating circular saws;
(4) Work connected with the manufacture or transport of explosives or inflammable materials;
(5) Mining involving underground work;
(6) Other types of work as specified by the Ministry of Interior.

14. No employer shall employ any woman to lift, carry on the shoulders, carry on the head; haul or push things exceeding the following weight;
(1) Thirty kilograms for work done on the level ground;
(2) Twenty five kilograms for work required climbing a ladder or on any elevated surface;
(3) Six hundred kilograms for weight loaded on a vehicle on wheels with rails to be hauled or pushed;
(4) Three hundred kilograms for weight loaded on a vehicle on wheels without rails to be hauled or pushed.

15. No employer shall employ an unmarried woman under eighteen years of age in night clubs, dance halls, dance studios, places where liquor spirit is sold and served, bath and massage parlours, hotels, or the places specified by the Ministry o f Interior.

16. No employer shall employ any woman employee between 24.00 hours and 06.00 hours, unless the work is of such a nature that it has to be carried out continuously or operated by shifts or by its nature or by its conditions has to be done during such time.

17. In case a Labour Inspection Officer considers that the employment of women by an employer according to Section 16 may be detrimental to their health and safety, the Labour Inspection Officer shall report it to the Director General or any person authorized by him to make decision and to order the employer to change the working hours or to reduce the number of hours of such work. The employer shall act accordingly.

18. A woman employee who is an expectant mother is entitled to take maternity leave of absence without pay in addition to sick leaves as stipulated in the first paragraph of Section 12 for a period of sixty days including holidays. In case the woman has

been employed for not less than one hundred eighty days, she shall be entitled to receive wages during her leave at her current wage rate for a period not exceeding thirty days.

If the woman is still unable to work owing to confinement, she shall be entitled to taking heave without pay for another thirty days.

The provisions of the second and third paragraphs of Section 12 shall apply to leaves taken under this Section mutatis mutandis.

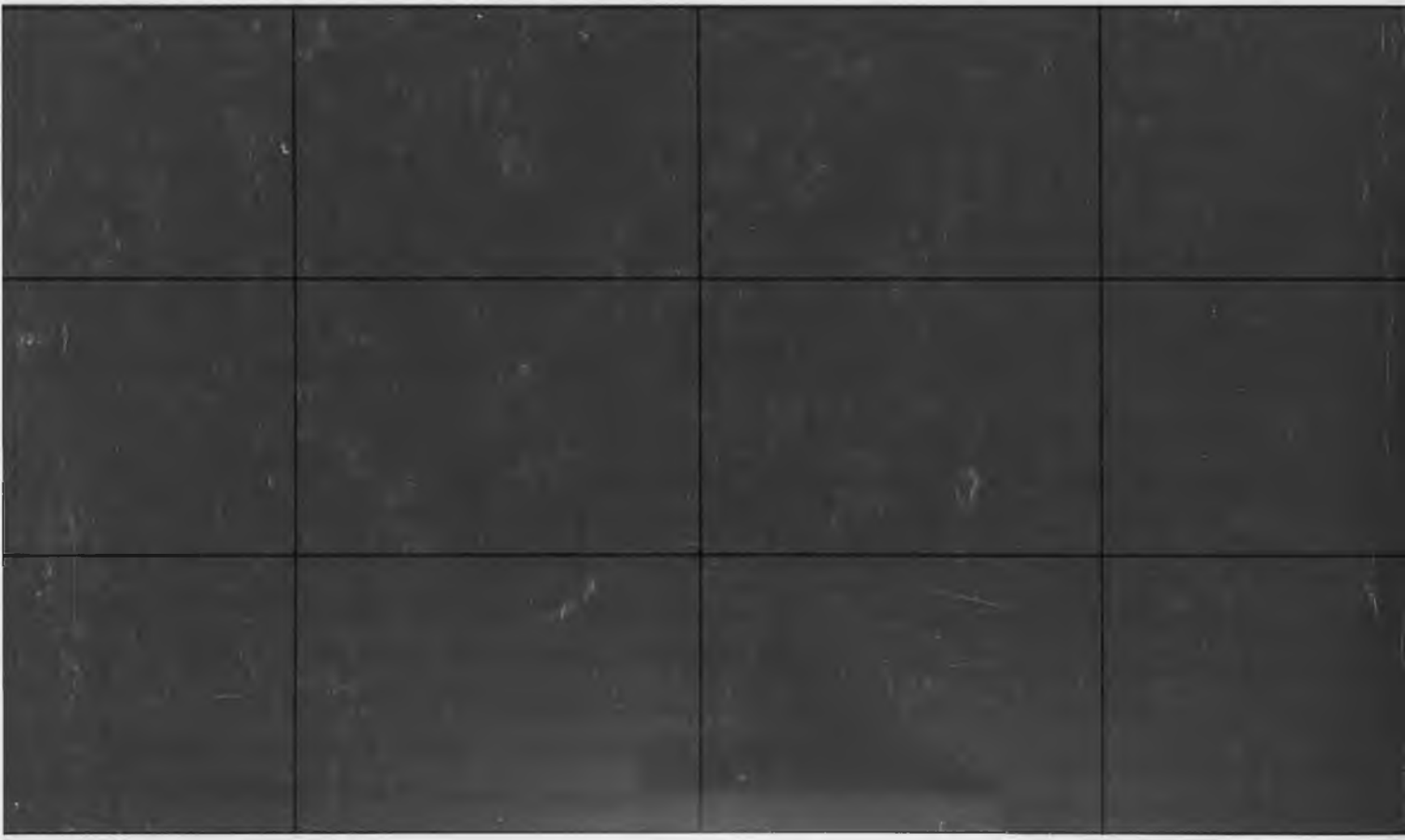
19. In case a woman who is an expectant mother provides an employer with a certificate from a first class medical doctor showing that she is unable to be employed in her present work, she shall be entitled to request a change of work for a temporary period before or after her confinement, and the employer shall consider such request accordingly.

Note:

Section 12. Any employee shall be entitled to sick leave of not more than thirty normal working days per year.

The employer may require an employee to produce a certificate from a first class medical doctor for a sick leave over three days. If the employee is unable to call on a first class medical doctor the employee shall inform the employer accordingly.

If the employer has provided a doctor, the latter shall issue the certificate to the employee except in the case where the employee cannot be examined by him.



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