

# The Labor Force Transformation in Korea: 1960~1980

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## I. Introduction

Until 1962, the year in which Korea embarked on the first five-year Economic Development plan, the overall labor situation could be defined as a surplus-labor economy with severe mass unemployed and underemployed looking for jobs(Park, 1980). In the structure of the labor force, while more than 65 percent of the labor force was engaged in agriculture, less than nine percent participated in industry. In contrast, 24 percent of the labor force was engaged in service. Therefore, the economic structure of Korea prior to 1962 was very unstable and unhealthy.

However, with the start of the first five-year Economic Development plan, a wide range of remarkable changes occurred successively in various sectors of the Korean economy, continuing up to the present time. Due to these changes in particular, the traditional characteristics of the labor market in Korea have greatly changed. Consequently, the harsh experience of chronic unemployment has gone into oblivion. So also is the economic structure of Korea moving from agricultural industry to manufacturing and service industries, following the general trend

that in the course of a country's economic growth and development, the labor force is transformed with rapid economic development.

The rapid economic development has had impacts on the amount of the labor force used for the production of goods and services, as well as the structure of the labor force. As a result, there have been a lot of changes in the structure of the labor force in Korea in the process of economic development.

Within these contexts, it will be meaningful to examine the changes of the structure in the labor force over time(from 1960 to 1980), especially the sectoral transformation of the labor force, because we can learn the situation and the process of a transforming labor force structure. We also expect to predict the structure of the labor force in the future with these results, and will discuss the consequences of the labor force transformation.

Therefore, the aims of this paper are to examine as well as analyze the structure of labor force transformation and to gain knowledge of the factors which enter into the determination of a labor force, with special attention given to the shift from the primary sector to the secondary and tertiary sectors.

## II. Labor Force Contexts in Korea

Korea achieved rapid economic growth at an average annual rate of 8.5 percent (1960~1980), compared with an average economic growth rate of 4.6 percent for the world, since the economic planning program was implemented in 1962 (see Table 1). As a result, there were remarkable changes in various aspects of the economy.

As Table 2 shows, the proportion of the labor force increased from 49 percent in 1960 to 54.8 percent in 1970 and 54.7 percent in 1980. While male labor force participation rate was consistent, the female labor force participation increased over time (27 percent in 1960, 37 percent in 1970, 38 percent in 1980). Therefore, the increase in the proportion of the labor force may be primarily due to the increase females in the labor force. In fact, in the 1960's there was an obviously unlimited supply of labor and a great deal of disguised unemployment in the form of potential labor force (Woo, 1980: 187). The existence of such a potential labor force has played an important role in maintaining the rapid growth of the Korean economy through the 1960's.

Labor migration was accompanied by industrialization and a great deal of unemployment has existed in urban areas for a long time. Therefore,

**Table 1. GNP Growth Rate by Countries:  
1960~1980**

	Developed Nations	Developing Nations	Average of World	Korea
GNP Growth 1960~70	4.9	5.1	5.2	8.7
Per Capita GNP Growth 1960~70	3.7	2.4	3.1	6.2
GNP Growth 1970~80	3.4	6.0	4.0	8.1

Source: Yearbook of National Income.

such a process of increases in the urban female labor participation rate corresponding to economic growth and to its resulting labor demand will take time to be realized before a great deal of unemployed and underemployed adult male and young male labor flow from rural areas is absorbed in the due course of urbanization. For example, the urbanization rate increased from 28 percent in 1960 to 41 percent in 1970 and 57 percent in 1980.

Therefore, the formula of economic growth which increases the labor demand and in turn increases the urban female labor participation rate should be transformed into such a formula as "economic growth increases labor demand."

The employment situation was much improved owing to considerable expansion of job opportunities accompanied by rapid economic growth. In particular, the improvement of the employment situation was due to an increase in employment in the secondary and tertiary industries.

Generally, traditional customs with regard to the division of labor according to sex and age in pre-industrial and little industrialized societies are varied in developing countries. In the process of economic development, as productions formerly performed by households or community groups are taken over by specialized units, the roles of income producers and dependents become more distinct (Bowen, 1969). As a result, more jobs are made available, especially since the economic development was implemented by the Korean government to provide more jobs for the mass unemployed and underemployed (Park, 1980: 86).

The mean level of the economic development rates describes a U-shaped curve moving up the scale of development levels. Relatively high crude activity rates, on the average, are found both in the least developed and the most developed countries, and a considerably lower average in those at the middle level of development. The

cross sectional pattern suggests that a typical secular trend in countries undergoing economic development might be one of a diminishing relative size of the labor force during early stages of development, and an increasing relative size during later(Standing, 1977). However, in Korea the labor force participation rate increased in the early stage of development and was stabilized during 1970~1980(see Table 2).

Activity rates above 95 percent in the male population of ages 30 to years have been recorded almost universally in censuses of different countries and at different times, and no general pattern of variations in relation to economic development is apparent(Durand, 1975:84). Like most other countries, over 95 percent of the male population aged 30 to 44 years worked in Korea.

However, according to Durand(1975), the rates in younger and older age groups of males display a tendency to decrease as economic development goes forward, a tendency that is most pronounced and most consistently marked in the statistics for ages under 20 and over 65. This signifies a trend of a rising average age of entry for males into the labor force, and a falling average age of retirement. As a result, there is a decline in the male labor force participation with the process of economic development(Durand, 1975:93). In Korea, the male labor force participation rate is consistent with the process of economic development. This result may be due to the fact that providing jobs for the pre-existing high unemployment offset the delayed entry group of males participating in the labor force.

Activity rates of females in the youngest and oldest age groups, like those of males tend generally to decrease in the process of economic development(Durand, 1975). But according to Woo(1980), there was an increase in the youngest female groups in the process of economic

development in Korea because the industrialization provided a lot of job opportunities for young females who could not have had such jobs before the industrialization. Young female labor force participation is preferable because they are a cheaper labor force than males.

The greater participation by women in urban and nonagricultural sectors than in rural and agricultural sectors is expected, because economic development provides more jobs in the urban areas.

The types of economic activity are described by three primary classifications of workers, by industry, occupation, and status. Generally, with a nation's economic development and its progress in industrialization, the distribution of the employed population shifts from agricultural to industrial activities, particularly manufacturing, and then further from these sectors to service activities, because the economic development is mainly due to the development of industries. Then, with the development of industrial fields, service fields are necessary as the byproducts of industrial development.

With the process of economic development, there are increases in administrative, managerial, and clerical workers(Braverman, 1976).

While the proportion of employees increases, that of the selfemployed declines since the organization of production in specialized, market-oriented units takes over the formerly productive functions of household and community groups. As a result, when the proportion of self-employed and family workers declined in the agricultural and manufacturing industries the percent employed increased in Korea.

The changes in the structure of the society and economy and accompanying changes in life styles which take place in the process of economic development play important roles in bringing about changes in the labor force dimensions. With the transformation of economic

activities, we can see in what directions the industry, occupation, and status distribution of the nation's manpower have been changing, study factors associated with these changes, and obtain some basis for predicting likely directions of change in the future.

For this study the following data are used:

- 1960 Population and Housing Census of Korea, Volume A: 20 percent sample.
- 1970 Population and Housing Census Volume 2. 10 percent sample survey, 4-1 economic activity.
- 1980 Population and Housing Census Report, Volume 2: 15 percent sample survey, 3-1 economic activity.

### III. Demographic Aspects of the Labor Force

The brief and crude method of the extent of participation in economic activities is the general economic rate, which may be defined as the percentage of the total population of all ages above 14 years old represented by the economically active population. This rate gives us an idea of what proportion of the population is part of the labor force.

As Table 2 shows, there has been an increase in the proportion of the labor force over a period of time with economic development. That is, the proportion of the labor force increased from 49.0 percent in 1960 to 54.8 percent in 1970 and in 1980, although there was no difference in the proportion of the labor force between 1970(54.8 percent) and 1980(54.7 percent). During this period, the economic development led high labor force participation, absorbing the mass unemployment and underemployment which existed before 1960. In spite of increases in job opportunities with industrialization, the reason why there was no increase in the proportion of the labor force during 1970~1980 may be that the

**Table 2. Proportion of Labor Force by Sex. Year**

Year	Both	Male	Female
1960	49.0	73.4	26.8
1970	54.8	72.5	37.6
1980	54.7	72.4	38.4

extended education period and pre-existing underemployment offset the increase of job opportunities.

As we expected, the proportion of the male labor force shows consistent rates over time, although declining very slightly(73.4 percent in 1960, 72.5 in 1970, 72.4 in 1980). The decreasing rate of male economic activity does not imply that fewer men are taking part in the labor force during their lifetime; it may be that the extent of their participation is diminished by delayed entry into the labor force, again because of extended school attendance.

On the other hand, the proportion of females in the labor force increased dramatically, from 26.8 percent in 1960 to 37.6 percent in 1979, and was followed by small increases between 1970 and 1980(38.4 percent). From these results, we assume that the economic development provides many job opportunities for females, as well as changing females' roles. For example, in 1960, more than half of the economically inactive population were female housewives. There were two main reasons for the smaller increases in the proportion of the female labor force between 1970 and 1980. One is that the rate of female labor force participation is limited by traditional culture. The other is that female school attendance increased with economic development.

Overall, in spite of population increase, the economic development provided job opportunities and solved the mass unemployment and underemployment which existed before industrialization

in Korea.

Like most developing countries, the proportion of male labor force participation has not changed very much. On the other hand, the proportion of females in the labor force increased dramatically in the process of economic development. In all societies production of income is a primary function of men in the central adult ages, and so economic development has not brought an important change in this respect. However, as economic development progresses, the overall level of participation by females in the labor force rises because economic development not only provides job opportunities for females, but also has effects on the values of the female labor force.

At this point, it is helpful to examine the changes in the proportion of the female labor force by region (rural and urban areas) over a period of time.

In Table 3, while the proportion of the female labor force in rural areas increased (40.9 percent in 1960, 48.2 in 1970, and 50.5 in 1980), in the urban areas it was nearly stable (30.2 percent in 1960, 29.8 in 1970, 29.8 in 1980). In connection with these results, it is necessary to mention that a lot of industrial estates which were newly established for supporting export-oriented industrialization have absorbed a great deal of young female laborers near those estates, particularly in the Masan, Gumi, Ulsan, Changwoon, and Ahnyang areas (Park, 1980: 189). We can say that such an increase in commuting female workers results in an increase

of female labor force participation. Most of the newly established industrial estates and factories are located in suburbs of large cities, where there is easy access to the rural labor force, so that they have contributed to the substantial increase of rural female labor participation during the 1980 period.

Since the (general) rates of economic activity were affected by differences in the age composition of the various components, we examine the difference in economic activity recorded for each sex over the working-age range over time.

Table 4 presents data illustrating the wide variation in economic activity rates over-specific groups. Generally, the proportion of the labor force for all age specific groups increased over time. On the other hand, there are some differences in the proportion of the labor force by sex. Especially in the entry group (15-24), the proportion of the male force has declined (48.0 percent in 1960, 47.9 in 1970, 44.4 in 1980), while the proportion of the female labor force has increased (28.0 in 1960, 41.9, in 1970, and 43.4 in 1980). The reason for the decline in the proportion of the male labor force in the entry group may be once again due to the group's later entry into the labor force because of extended school attendance with the economic development, the enrollment in higher education increased rapidly, particularly for males. In Korea, getting a higher education is the major mechanism for moving towards the upper socio-economic classes. There has been a large income differential between college graduates and high school graduates.

On the other hand, the female's period of education is relatively shorter than that of males, because of the limited higher job opportunities for women. Economic development provides a lot of jobs which were not available before modernization of females.

Another interesting point in the female labor

**Table 3. Percentage of Female Labor Force by Rural and Urban Areas**

Year	Rural	Urban
1960	40.9	30.2
1970	48.2	29.8
1980	50.5	29.8

**Table 4. Age-Specific Economic Activity Rates by Sex Over Time**

Age	Both			Male			Female		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
15~24	38.4	44.2	43.8	48.0	47.9	44.4	28.0	41.9	43.4
25~34	54.6	62.4	63.1	84.3	90.6	94.8	27.9	34.0	3.16
35~44	64.6	69.8	71.7	96.8	96.3	97.1	35.5	44.9	45.9
45~54	64.8	70.0	70.7	96.6	93.7	93.3	33.6	47.1	50.3
55~64	50.2	54.3	55.9	78.8	77.9	76.9	24.0	33.6	38.2
65 & above	21.3	20.0	23.2	37.3	35.1	40.6	9.0	10.6	13.0

force is that the proportion of the labor force declined in the age-specific group 25~34, then increased in the age-specific group 35~44. This may be because young females are more likely to be employed before they are married, but once married they are forced to quit their jobs by employers who replace them with cheap surplus labor.

The female pattern differed in two important respects: the rates were appreciably lower at all ages, although those increased over time and the curve followed quite a different path. After young age groups the rate rose to slightly above 40 percent (except in 1960) for the age-specific group 15~24, dipped down somewhat in the late twenties and early thirties, then rose gradually to the neighborhood of 50 percent in the late forties and early fifties, after which it fell slowly. Withdrawal of women from the labor force due to marriage or pregnancy is responsible for the dip, while subsequent re-entry after the birth of a child or when the children are older causes the second rise in the early thirties.

Unlike the other countries under the process of economic development, in Korea the increased rate of earlier retirement of males from the labor force does not occur over time, as Table 2 shows. It may be because the welfare system for retired people is relatively poorer than that in developed countries, so people are less likely to retire before they are physically unable to work.

A distinct pattern of variation with age prevailed for each sex. For males the rate rose steeply in the age group 25~34, to a little above 90 percent. It remained in the neighborhood of 95 percent through ages 25 to 54, comparable to most other countries, after which it fell as disabilities gradually removed men from the labor force. This pattern merely reflects the traditional attitude in Korea that unless a man is sick or permanently disabled he should work, even though he may be a person of some wealth.

In this section, we have learned only a general idea of the source of causes of the labor force transformation. We do not clearly know what the important consequences of the transformation process are. In addition, we still do not comprehend the mechanics of the transformation process itself. Therefore, in the following section, we will discuss how this happens and the forms it takes. That is, we will discuss what characteristics of the labor force (age, sex) are associated with sectors and industries and have changed their patterns between 1960 and 1980.

#### IV. Sectoral Transformation in the Labor Force

First of all, it is necessary to define the allocation of specific industries to specific sectors

**Table 5. Percentage Distribution of Economically Active Population in Korea by Sector, Sex**

Sector	Both			Male			Female		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
Primary	66.6	51.8	38.5	65.3	47.3	33.9	69.7	59.9	46.4
Secondary	8.7	19.1	27.6	9.7	21.3	30.3	7.4	15.1	22.9
Tertiary	23.8	28.8	33.9	24.3	31.0	35.8	22.6	24.7	30.6
Total	99.1	99.7	100.0	99.3	99.6	99.0	99.7	99.7	99.9

before we move on to the sectoral transformation. In order to conduct the analyses on the sectoral transformation, an industry classification scheme is necessary. According to Browning and Singlemann (1975:6), the most familiar of existing schemes is the Fisher-Clark three-sector model, which consists of primary industries (agriculture, mining, fishing, and forestry), secondary industries (manufacturing, construction, and utilities), and tertiary industries (commerce, transport, communication, and services). The logic behind this classification is that economic progress had been achieved in the past and was to be achieved in the future from secondary to tertiary sectors (Browning and Singlemann, 1975:6). Therefore, the key feature is the transfer of employment from the primary sector to the secondary sector. But, according to Browning and Singlemann (1975:6), "the movement from secondary to tertiary employment is not a consequence of the higher productivity of the latter. Rather it is the high level of per capita income that manufacturing generates that makes possible the demand for a variety of services."

However, there have been various criticisms of the Fisher-Clark thesis. The greatest criticism concerns the heterogeneity of activities carried on within the tertiary sector. We need to break down the tertiary sector into subdivisions as the tertiary sector becomes larger and more diversified. So the Browning-Singlemann classification was generated, the better to under-

stand the sectoral transformation of the labor force. Although this classification has been mainly applied to developed countries, this classification is used for analysis to better understand the sectoral transformation of the labor force in Korea. The six major sectors of this classification are as follows: extractive, transformative, distributive services, producer services, social services, personal services.

The trends in the percentage distribution of the working population among these six sectors will give us a broad idea of the changes that took place in the Korean economy.

Table 6 shows that while the percentage of the labor force in the primary sector declined over time, the labor force in the other sectors increased. More specifically, the labor force in agriculture declined from 65.9 percent in 1960 to 50.8 percent in 1970 and 37.8 percent in 1980. On the other hand, the labor force in the manufacturing industries increased almost four times between 1960 (6.8 percent) and 1980 (22.1 percent).

In the distributive service, labor force participation in retail, transformation, and communication subsectors increased. In producer services, the increase of bank, insurance, and real estate subsectors is remarkable, although their proportion of the total labor force is very small. Social services also increased over time in the process of economic development. Within personal service, while hotel service increased very rapidly from 1960 (.4 percent) to 1980 (3.8 percent).

**Table 6. Percentage Distribution of the Labor Force by Industry Sectors and Intermediate Industry Groups, 1960-1980**

Sectors and industries	1960	1970	1980
I. Extractive	66.6	51.8	38.5
1) Agriculture	65.9	50.8	37.8
2) Mining	.7	1.0	.7
II. Transformative	8.7	19.2	27.6
1) Manufacturing	6.8	14.3	22.1
2) Elect. and Utility	.2	.3	.3
3) Construction	1.7	4.6	5.2
III. Distributive Services	10.2	12.4	16.7
1) Wholesale	.8	.6	1.7
2) Retail	7.3	9.6	10.7
3) Transportation	1.9	2.8	3.8
4) Communication	.2	.4	.5
IV. Producer Services	.87	.81	2.2
1) Banking	.2	.4	.8
2) Insurance	.03	.01	.3
3) Real estate	.08	.2	.5
4) Legal services	.5	.2	.6
V. Social Services	5.78	7.13	8.05
1) Government	3.3	3.0	2.6
2) Medical	.4	.03	.05
3) Social	1.9	3.2	4.7
4) Education	.14	.4	.5
5) Miscellaneous	.04	.5	.2
VI. Personal	7.1	7.3	6.8
1) Hotel and restaurant	.4	2.4	3.8
2) Personal and domestic	6.7	4.9	3.0
Total Labor Force	99.3	99.0	99.4

nt), domestic service declined over time (6.7 percent in 1960, 4.9 percent in 1970, 3.0 percent in 1980). The reason for this may be due to moving from housemaid jobs to other jobs, since better jobs were made available for females.

Overall, from these results we can say that economic development generally leads to an increase of the labor force in secondary and tertiary sectors. There are several reasons for these

results. First, economic development emphasizing industry provides a lot of new jobs, mainly in the industrial fields. Second, a lot of service fields are needed because of the diverse and sophisticated economic structure. Third, economic development induces female labor force participation in the nonagricultural sectors, providing new job opportunities for them. Fourth, there is a migration of the agricultural labor force into manufacturing or service sectors in the process of economic development. There was mass unemployment and underemployment before 1962, especially in rural areas.

With economic development, the structure of the labor force in Korea in 1980 is generally similar to that of developed countries, although the proportion of the labor force in agriculture is relatively higher than that of developed countries. As a result, the economic structure of Korea is much more stable and more likely to be based on industry compared to other developing countries. Therefore, we may consider Korea as a semi-developed country.

In Table 7, when the sectors are separated by sex we also found the same results as Table 6, except for insurance and domestic subsectors. In the insurance industry, while male participation doubled between 1970 (.1 percent) and 1980(.2 percent), female participation increased more than six times between 1970 (.08 percent) and 1980 (.5 percent). We cannot compare the labor force transformation of 1960 to other periods by sex because the data by sex in 1960 are not available. The rapid increase of female participation in the insurance industry is due to the high participation of housewives as outside insurance contractors.

Female labor force participation in domestic service declined from 6.6 percent in 1970 to 3.2 percent in 1980. Again, a lot of housewives, who had worked in the domestic fields, moved to other jobs which were not available to them



**Table 7. Percentage Distribution of the Labor Force by Industry Sectors by Sex, 1970-1980**

Sectors and Industries	Both		Male		Female	
	1970	1980	1970	1980	1970	1980
I. Extractive	51.0	37.0	43.4	32.1	56.2	46.5
1) Agriculture	50.0	36.0	42.0	31.0	56.0	46.4
2) Mining	1.0	1.0	1.4	1.1	0.2	0.1
II. Transformative	19.6	26.6	20.4	29.9	15.0	23.1
1) Manufacturing	14.3	21.1	13.0	21.2	14.0	22.0
2) Elec. & Utility	0.3	0.3	0.4	0.4	0.0	0.1
3) Construction	5.0	5.2	7.0	8.3	1.0	1.0
III. Distributive Services	14.4	17.5	15.6	18.4	10.4	12.4
1) Wholesale	1.0	2.0	1.0	2.1	0.4	0.0
2) Retail	10.0	11.0	10.0	10.3	9.3	11.4
3) Transportation	3.0	4.0	4.2	5.4	0.4	1.0
4) Communication	0.4	0.5	0.4	0.6	0.3	0.0
IV. Producer Services	0.9	3.3	1.7	3.2	4.5	2.4
1) Banking	0.4	1.0	1.0	1.0	0.3	1.0
2) Insurance	0.1	0.3	0.1	0.2	0.08	0.5
3) Real estate	0.2	1.0	0.3	1.0	0.0	0.1
4) Legal Services	0.2	1.0	0.3	1.0	0.0	0.3
V. Social Services	6.8	8.7	13.7	10.1	3.6	5.7
1) Government	3.0	3.0	4.3	4.0	1.0	1.0
2) Medical	0.0	0.0	0.0	0.1	0.0	0.0
3) Social	3.2	4.7	4.0	5.0	2.3	4.3
4) Education	0.4	1.0	1.0	1.0	0.2	0.4
5) Miscellaneous	0.2	0.0	4.0	0.0	0.1	0.0
VI. Personal	7.4	7.0	6.0	5.4	10.7	9.4
1) Hotel and restaurant	2.4	4.0	2.0	2.4	4.1	6.2
2) Personal and domestic	5.0	3.0	4.0	3.0	6.6	3.2
Total Labor Force	100.1	100.8	100.8	100.1	100.8	99.0

before economic development.

The general trends in employing a female labor force vary by industry. For example, mining, construction, and electricity are good examples of industries that employ mainly men. Perhaps the best examples of industries employing females as well as males are agriculture, manufacturing, service, and commerce. Among those, agriculture and commerce are more likely to hire females than males, although the difference between sex ratios is small. It is important to note that the female labor force in the man-

ufacturing industry is mainly engaged in the light manufacturing industry as simple and cheap laborers.

With these contexts of the labor force structure in mind, it will be meaningful to examine the change of entry group(15-19) in the sectors over time, because we expect to determine which sector involves the highest or lowest entry group labor force.

In Table 8, while the highest proportion of the entry group labor force (43.4 percent) was engaged in agriculture in 1970, by 1980 the

highest proportion of the entry group labor force was engaged in manufacturing (52.0 percent). The female entry group participation in distributive service increased over time; the increase in producer service is especially noteworthy. It must also be noted that female entry group participation in domestic labor declined very rapidly, from 17.6 percent in 1970 to 5.2 percent in 1980.

As a result, we can assume that the labor force entry group transferred from the agricult-

ural sector to the industrial sector with economic development. It is especially important to note that the remarkable increase in the female entry group in the manufacturing sector is due to the demand for young female labor force in that industry.

However, there was only a trivial increase in the labor force entry group in service sectors. The reason for this is that service sectors generally require relatively higher educated labor forces (completion of high school, at minimum)

**Table 8. Percentage Distribution of the Labor Force by Industry Sectors and Intermediate Industry Groups by Sex, Entry Group(15-19), 1970-1980**

Sectors and Industries	Both		Male		Female	
	1970	1980	1970	1980	1970	1980
I. Extractive	44.0	24.2	51.7	35.7	35.1	15.58
1) Agriculture	43.4	23.9	50.8	35.1	34.9	15.5
2) Mining	.6	.3	.9	.6	.15	.08
II. Transformative	30.7	52.2	26.7	43.8	35.17	61.58
1) Manufacturing	28.2	52.0	22.6	39.9	34.6	60.9
2) Elec. & Utility	.2	1.3	.2	.2	.07	.08
3) Construction	2.3	1.9	3.9	3.7	.5	.6
III. Distributive Services	7.4	8.7	9.6	9.0	4.9	8.4
1) Wholesale	.5	1.1	.5	.9	.4	1.2
2) Retail	5.0	4.8	6.6	5.7	3.1	4.1
3) Transportation	1.6	2.4	2.1	2.0	1.0	2.7
4) Communication	.3	.4	.3	.4	.4	.4
IV. Producer Services	.44	1.76	.44	1.29	.45	2.18
1) Banking	.26	.9	.2	.6	.3	1.2
2) Insurance	.04	.2	.02	.06	.07	.3
3) Real estate	.02	.06	.02	.03	0	.08
4) Legal service	.12	.6	.2	.6	.08	.6
V. Social Services	2.81	3.46	2.19	2.2	3.53	4.6
1) Government	.87	1.0	.8	.9	.9	1.2
2) Medical	.01	0	.02	0	0	0
3) Social	1.5	2.1	.9	1.0	2.1	3.0
4) Education	.37	.36	.4	.3	.3	.4
5) Miscellaneous	.06	0	.07	0	.05	0
VI. Personal	14.4	7.7	8.8	8.0	20.7	7.5
1) Hotel and restaurant	3.2	3.1	3.2	4.3	3.1	2.3
2) Personal and domestic	11.2	4.6	5.6	3.7	17.6	5.2
Total Labor Force	99.8	99.0	100.2	100.0	99.7	99.9

**Table 9. Percentage Distribution of the Labor Force by Industry Sectors and Class of Workers, 1960-1980.**

Sectors	Self-employed			Family worker			Employee		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
I. Extractive	71.1	67.5	57.2	94.7	88.2	86.4	25.6	16.2	4.6
II. Transformative	5.6	6.7	10.1	1.8	4.1	2.5	32.6	38.9	51.6
III. Distributive serv.	15.0	21.7	27.0	2.6	6.9	10.2	17.4	16.2	18.9
IV. Producer services		.7	1.3		.03	.06		1.7	3.9
V. Social and personal serv.	8.3	3.2	4.4	.3	.7	.86	24.4	26.8	20.9
Total	100.0	99.8	100.0	99.4	100.2	100.3	100.0	99.8	99.9

**Table 10. Percentage Distribution of the Labor Force by Industry Sectors and Class of Workers, Male, 1960-1980.**

Sectors	Self-employed			Family worker			Employee		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
I. Extractive	74.0	70.8	60.0	95.5	88.2	88.5	24.4	16.0	5.5
II. Transformative	5.5	6.3	10.7	1.9	4.6	3.9	18.1	39.2	50.3
III. Distributive serv.	12.2	18.7	23.6	2.0	5.9	6.9	13.7	17.0	19.1
IV. Producer services		.9	1.6		.06	.1		1.8	3.7
V. Social and personal serv.	7.9	3.2	1.4	.6	1.2	1.2	36.2	25.9	21.4
Total	99.6	99.9	98.3	100.0	100.5	100.6	99.4	99.9	100.0

compared to the manufacturing sectors. Therefore the significant proportion of participation by young labor forces in the service sector is delayed by extended education.

Most studies indicate that with economic development, the proportion of employees increases as the proportion of self-employment and family workers decreases, because economic development produces large-scale industry with larger businesses absorbing smaller and individual businesses and thus employing larger labor forces. As Table 9 shows, the proportion of self-employed increased in all sectors, except the extractive sector, over time, although the proportion of those is relatively smaller than that of the extractive sector.

Most of the family workers were engaged in the extractive sector, although the proportion of that declined over time. On the other hand, the

proportion of family workers in other sectors increased in the process of economic development, except extractive and transformative sectors. Therefore, there was an increase of self-employed and family workers in the tertiary sector in the process of economic development. The largest proportion of employees are engaged in the transformative sector (51.6 percent in 1980), while only 4.6 percent of employees are engaged in the extractive sector.

In Tables 10 and 11, each sex generally shows the same results as Table 9. The proportion of self-employed, family workers, and employees declined in the extractive and domestic sectors. On the other hand, those sectors increased in transformative, distributive, and producer services. However, while the proportion of self-employed and family workers declined, overall that of employees increased. In Korea, compar-

**Table 11. Percentage Distribution of the Labor Force by Industry Sectors and Class of Workers, Female, 1960-1980.**

Sectors	Self-employed			Family worker			Employee		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
I. Extractive	52.5	52.6	47.0	94.2	88.2	85.9	26.7	16.8	2.7
II. Transformative	5.8	8.6	7.7	1.7	3.8	2.0	25.1	38.2	54.5
III. Distributive services	31.1	35.5	39.9	3.2	7.4	11.4	4.6	14.1	18.4
IV. Producer serv.		.1	.3		.01	.04		1.4	4.5
V. Social and personal serv.	10.5	3.2	5.1	.8	.6	.7	43.5	29.5	19.9
Total	99.9	100.0	100.0	100.1	100.1	100.5	99.9	100.0	100.0

**Table 12. Percentage Distribution of the Labor Force by Industry Sectors and Age Groups, 1970-1980.**

Sectors	15-24		25-34		35-44		45-44		55-64	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
I. Extractive	42.8	21.1	44.1	25.4	51.7	38.3	58.7	54.1	73.7	71.5
II. Transformative	29.3	54.8	21.2	32.9	15.9	22.7	12.2	14.6	8.6	8.0
III. Distributive services	9.1	10.0	17.0	21.3	16.5	20.6	13.4	15.6	10.1	10.4
IV. Producer services	.8	2.1	1.0	2.4	.9	2.0	1.0	2.2	1.2	2.2
V. Social services	4.9	5.4	10.4	10.2	9.8	9.4	4.8	8.0	2.2	3.8
VI. Personal services	13.0	6.7	6.3	7.7	5.2	7.0	5.0	5.4	4.2	4.1

able to other findings, with economic development self-employment decreased and the number of employees increased, because economic development produced large-scale industry which absorbed small and individual businesses, employing a large labor force. That is, these results may be due to the organization of production in specialized, market-oriented units, taking over the former productive functions of household and community groups.

## V. Age and Sectoral Transformation

Age has been a crucial variable in the population. Although in this study, based on census data, the potential of age as a variable cannot be as widely analyzed as most population studies, it is important to learn the structure and transformation of the labor force.

In Table 12, the sectoral and industry distributions for the total labor force is presented by ten-year age intervals from 15-64. The distributions are provided for 1970 and 1980. Since the data for 1960 is not available, we will discuss the relationship from 1970 to 1980. In Table 12, the proportion of the labor force of each age-specific group declined over time in the extractive and personal service sectors. On the other hand, proportion of labor force of each age-specific group increased in distributive, producer, and social service sectors.

It is important to note that the age category with the highest share of the total labor force in the extractive sector is the oldest one, 55-65, because agriculture has been declining very rapidly over two decades. The age category with the highest share of the total labor force in the distributive sector is 35-44. But the other

**Table 13. Percentage Distribution of the Labor Force by Industry Sectors and Age Groups, Male, 1970-1980.**

Sectors	15-24		25-34		35-44		45-54		55-64	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
I. Extractive	48.5	34.0	36.1	19.4	43.0	29.3	55.0	44.8	69.3	65.4
II. Transformative	27.0	41.1	25.7	39.2	20.0	28.3	16.7	19.8	11.0	11.1
III. Distributive services	11.5	12.2	18.9	22.3	17.3	22.4	14.7	17.5	10.9	11.4
IV. Producer services	.7	3.9	1.2	2.7	1.3	2.4	.6	3.1	1.7	3.2
V. Social services	4.1	3.9	12.6	10.4	13.8	12.2	7.2	10.6	3.0	5.4
VI. Personal services	8.3	7.2	5.5	6.0	4.6	5.3	4.9	4.1	4.0	3.4

**Table 14. Percentage Distribution of the Labor Force by Industry Sectors and Age Groups, Female, 1970-1980.**

Sectors	15-24		25-34		35-44		45-54		55-64	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
I. Extractive	36.1	12.9	65.4	43.5	69.2	57.4	74.6	68.9	82.3	81.7
II. Transformative	32.0	63.4	9.5	14.0	7.6	10.6	5.6	6.3	3.7	2.8
III. Distributive services	6.4	8.6	11.9	18.5	14.9	16.9	12.8	12.6	8.5	8.7
IV. Producer services	2.9	2.3	.3	1.5	.2	1.1	.1	.9	.06	.4
V. Social services	5.7	6.4	4.4	9.5	1.7	3.2	1.0	3.9	.8	1.0
VI. Personal services	18.5	6.4	8.5	13.5	9.3	10.7	5.9	7.5	4.6	5.3

three sectors have their peak percentage in the younger age categories: transformative and personal sectors in the youngest category, 15-24, and producer service in the 25-34 category.

Another way to examine the age distribution is to look at the direction of change in relative size from the youngest to the oldest age category. In the extractive sector, the direction of change moves regularly upward from 21.1 percent to 71.5 percent. In the transformative sector, it moves regularly downward, from 54.8 percent to 8.0 percent. The pattern for the distributive sector is different, rising from 10.0 percent in the 15-24 category to 20.6 percent in the 35-44 category, after which there is a decline. The pattern for the social service sector is the same as that for the distributive, except that it falls from the 35-44 category.

In terms of the age distribution, the transfor-

mative sector in particular, as well as the personal service sector, are likely to be entry sectors, while the producer and social sectors have the strongest representation in the next oldest category, but not in the extractive sector.

Tables 13 and 14 provide the same distributions for males and females, but sex effects mainly occurred in the social and personal service sectors. For males, the strongest representation in social service is in the 35-44 age category, but for females it is in the 25-34 category. In the transformative sector, it is very different by sex. For example, female participation in this sector declines very rapidly after the 15-24 age category, while for males there is little change.

In personal service, the male entry group declined from 8.3 percent in 1970 to 7.2 percent in 1980, while the female entry group declined from 18.5 percent in 1970 to 6.4 per-

cent in 1980. Reasons for this were given above, and will not be detailed again here.

The intercensal changes are more pronounced by sex than for the total labor force. The decline for both males and females in the extractive sector between 1970 and 1980 occurred for all age categories, and the same is true for the decline in the domestic sector. The increase for males in the transformative sector between 1970 and 1980 occurred for all age categories, except for the 55-64 age group. But the female labor force participation in the transformative sector declined rapidly after the 15-24 age group, and increased a little after the 25-34 age category. This is due to young females who participate in economic activity, but quit their jobs after marriage, especially in the transformative sector. This result is related to cultural values as well as the surplus labor force.

## VI. Occupations Within Industry

Industries and sectors do vary in the degree to which they have different occupational mixes, that is, in the varying proportions of high or low status occupations they display. This means that the differential growth of industries and sectors will directly affect the total occupational distribution and consequently will affect the

probabilities of social mobility for those in the labor force.

Industry position comes prior to occupational position, because everybody in the labor force should occupy an industry and an occupational position simultaneously. It is true that specific enterprises are created within specific industries. Then when enterprises are formed, someone within them must recruit individuals to occupy specific occupational positions (Browning, 1975).

Thus, the concern of this paper in this section is with the allocation of labor itself and how it is transformed over time. It is assumed that sectors and industries have differing occupational requirements, such that most industries will have occupational profiles that clearly differentiate themselves from other sectors and industries. It is also assumed that there have been significant differences introduced into the industryoccupational structures over time. Therefore, we will examine how the labor force changes.

Table 15 shows that professional workers nearly doubled between 1960 (2.4 percent) and 1980 (4.6 percent). Clerical workers increased almost four times between 1960 (2.6 percent) and 1980 (9.5 percent). Manual workers and sales workers also increased very rapidly: sales workers, 8.2 percent in 1960, 12.1 percent in 1980; manual workers, 13.2 percent in 1960,

**Table 15. Percentage Distribution of Economically Active Population by Occupation Subgroups, 1960-1980.**

Occupation	Both			Male			Female		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
Professional	2.4	3.2	4.6	2.7	3.8	5.2	1.5	2.0	3.5
Adm. Manager	1.3	.9	1.1	1.5	1.4	1.6	.8	0	0
Clerical	2.6	5.8	9.5	3.4	7.5	10.0	.5	1.5	8.6
Sales	8.2	10.1	12.1	6.4	10.4	12.3	9.6	9.6	11.6
Farmers	64.6	50.7	37.6	55.1	45.8	32.5	69.6	59.7	46.4
Manual workers	13.2	21.6	28.1	15.6	25.4	32.9	7.1	14.7	19.9
Service workers	5.9	6.7	7.0	4.4	4.4	5.4	9.6	10.8	9.9
Total	100.3	99.0	100.0	99.1	99.7	99.9	99.7	99.3	99.9

**Table 16. Occupational Distributions Within Industry Sectors, 1960-1980.**

Occupation	Services	Extract.	Transform.	Distribut.	Producer	Social and personal <sup>b</sup>
Professional	1960	.04	1.2	.3	...	16.4
	1970	.05	1.3	1.0	10.4	23.2
	1980	.07	2.0	1.2	14.5	31.9
Adm. Manager	1960	.07	5.7	1.0	...	15.1
	1970	.05	2.8	1.1	4.8	1.4
	1980	.06	2.4	1.0	5.3	.9
Clerical	1960	.2	4.3	3.2	...	12.4
	1970	.2	9.3	7.7	53.8	19.6
	1980	.2	12.3	10.0	77.7	25.5
Sales	1960	.04	1.2	56.4	...	2.6
	1970	.03	1.5	59.9	23.2	.9
	1980	.04	2.0	53.3	37.2	.03
Services	1960	.05	2.5	24.8	...	41.2
	1970	.05	1.4	14.6	3.7	35.3
	1980	.06	1.7	18.3	10.3	23.9
Farmers	1960	98.5	.06	.3	...	.1
	1970	97.7	.06	.1	.2	.2
	1980	97.5	.04	.04	.01	.3
Laborers	1960	1.2	85.1	13.9	...	22.9
	1970	1.8	83.6	15.6	14.3	19.5
	1980	2.1	79.6	16.1	8.7	17.5

a: data for producer sector in 1960 are not available

b: social and personal service sectors were combined by the Census office because of the limited amount of data.

**Table 17. Occupational Distributions Within Industry Sectors, Male, 1970-1980.**

Occupation		Extract.	Transform.	Distribut.	Producer	Social and <sup>a</sup> personal
Professional	1970	.08	1.7	1.2	12.3	24.8
	1980	.1	2.7	.6	12.3	30.2
Adm. Manager	1970	.8	3.7	1.7	5.7	1.9
	1980	.1	3.3	1.5	4.8	1.2
Clerical	1970	.3	11.0	8.8	48.5	24.4
	1980	.3	12.2	8.8	41.9	26.8
Sales	1970	.03	1.7	57.7	25.7	.9
	1980	.04	2.2	53.0	26.4	.03
Services	1970	.06	1.6	8.5	3.1	21.4
	1980	.08	1.6	11.7	7.2	18.5
Farmers	1970	95.9	.02	.1	.2	.2
	1980	95.8	.05	.05	.02	.4
Laborers	1970	2.8	81.7	22.1	4.5	26.3
	1980	3.5	77.8	24.5	7.3	22.9

a: social and personal sectors were combined by the Census office because of the limited amount of data

**Table 18. Occupational Distributions Within Industry Sectors, Female, 1970-1980.**

Occupation		Extract.	Transform.	Distribut.	Producer	Social and personal <sup>a</sup>
Professional	1970	.02	.3	.5	1.2	19.5
	1980	0	.5	.7	2.0	36.0
Adm. Manager	1970	0	4.3	.06	.6	.2
	1980	0	.09	.04	.1	.1
Clerical	1970	.02	5.2	5.3	79.3	8.3
	1980	.1	12.7	12.4	72.4	22.5
Sales	1970	.03	1.1	64.7	11.1	.7
	1980	.03	1.4	54.9	18.6	.03
Services	1970	.02	1.1	27.5	6.6	67.2
	1980	.02	1.8	30.5	5.4	36.8
Farmers	1970	99.6	.14	.1	.06	.2
	1980	99.6	.02	.04	.01	.1
Laborers	1970	.3	91.9	1.7	1.1	3.8
	1980	.2	83.7	1.4	1.4	4.6

a: social and personal service sectors were combined by the Census office because of the limited amount of data

28.1 percent in 1980. Service workers also increased over time, although the increase was slow. On the other hand, farmers declined from 65.6 percent in 1960 to 37.6 percent in 1980.

Tables 16, 17, and 18 present the occupational distributions within the five sectors for 1960, 1970, and 1980. The occupational distribution within the five sectors by sexes in 1960 is not presented because the data for 1960 by sex are not available.

There is a great concentration in a few occupational categories by sector. Farmers account for over 95 percent of employment in the extractive sector. In the transformative sector, laborers account for more than 80 percent of employment. Sales workers account for more than half of the employment in distributive service. Clerical workers account for the major employment of producer service. Service workers are the largest occupational group in the social and personal sector.

Professionals and clerical workers increased in all five sectors. Therefore, the meaning of the diffusion of occupational categories within sectors

can be elaborated by developing somewhat further the example of professionals and clericals. In particular, there is a large increase of professionals in the distributive, producer, and social and personal service sectors. The professional categories can be conceived of as indicators of expertise. With economic development, which leads to the diffusion of occupations, more professionals were needed in the sectors. Each sex also showed the same result as both sexes.

Clerical work is a very interesting occupational category, because it has been one of the fastest-growing categories. In manufacturing, clerical labor increased from 4.5 percent in 1960 to 12.3 percent in 1980. In the distributive sector, it also increased almost three times between 1960 (3.2 percent) and 1980 (10.0 percent). Producer and social service sectors also showed a high increase of clerical labor. Especially in producer service, clerical worker are the major employment group (77.7 percent) in 1980. We may take the rise of the clerical occupations within industry as an indication of bureaucratization. Therefore, we can predict that all sectors and indu-



stries should show a relative gain in clerical labor, even at different rates, because all are subject to one degree or another to the pervasive influence of bureaucratization.

Overall, there were changes in the occupational differentiation within sectors. In most industries, the proportion of professionals and clerical occupations increased. But while the proportion of manual occupations declined in the transformative and domestic sectors, those occupations increased in other sectors. Diversification and high technology with economic development require more professionals and clericals and reduce the proportion of simple physical work occupations in the transformative sector by introducing automation and new technology. In the domestic sector, the fact that female housemaids moved to other sectors with the change of social structure is due to economic development. The changes of other occupations within industries varies over time, but is not consistent.

In general for males and females, while farmers and administrative occupations declined, clerical, laborers, and sales occupations increased. Therefore, in Korea the increase of transformative and tertiary sectors occurred simultaneously. This phenomenon stands in contrast to the situations in developed countries, which took a longer time and increased the tertiary sector through the transformative sector.

## VII. Inter-industry Movement of Employment

Up to this point the analysis has been concerned with the changes in occupations and the structure of employment over time. We have been able to show that the labor force in Korea increased in secondary and tertiary sectors. The analysis showed how this shift of employment has occurred, but has not shown whether the expansion of secondary and tertiary sectors was due primarily to people moving from the primary sector, or if the secondary and tertiary sectors grow because of new labor force entries. Although this is an important consideration, since it can shed light on the transferability of employment from one industry to another, we cannot test it with the census data. However, we can examine the quick transformation of sectors with these data.

As Table 19 shows, there was a 144 percent increase in labor force participation between 1960 and 1970, with 125 percent of that increase between 1970 and 1980. Between 1960 and 1970, only the primary sector increased less (112.3 percent) than the total labor force increase rate. The highest growth sector between 1960 and 1970 was the transformative sector. Between 1970 and 1980, extractive and personal sectors increased

**Table 19. Increase of Labor Force by Sectors, 1960-1980**

Sectors	Labor force	Labor force	% of increase	Labor force	%of increase
	1960	1970		1980	
I. Extract.	4,680,310	5,256,587	112.3	4,885,320	92.9
II. Transform.	614,925	1,940,350	315.5	3,497,942	180.3
III. Distribut.	711,475	1,366,760	192.1	2,125,614	155.5
IV. Producer.	58,880	96,374	163.7	285,744	296.5
V. Social.	406,215	720,585	177.4	1,018,799	141.4
VI. Personal.	495,265	742,303	149.9	868,212	117.0

\*Total labor force growth rate between 1960 and 1970: 1.44

\*Total labor force growth rate between 1970 and 1980: 1.25

**Table 20. Increase of Labor Force by Sectors and Sex, 1970-1980**

Sectors	Male			Female		
	Labor force	Labor force	% of inc.	Labor force	Labor force	% of inc.
	1970	1980		1970	1980	
I. Extract.	3,114,220	2,726,331	87.5	2,142,367	2,158,989	100.8
II. Transform.	1,398,508	2,438,944	174.4	541,842	1,058,998	195.4
III. Distribut.	997,817	1,486,674	149.0	368,943	638,940	173.2
IV. Producer	79,473	205,169	258.2	16,378	80,575	492.0
V. Social	603,019	752,527	124.8	113,079	266,272	235.5
VI. Personal	366,459	434,021	12.0	380,844	434,191	114.0

\*Male labor force growth rate between 1970 and 1980: 1.20

\*Female labor force growth rate between 1970 and 1980: 1.33

less than the total force increase rate during that period, but the distributive sector was the highest growth sector. According to the data by sex, the producer sector was the highest growth sector for both males and females between 1970 and 1980, but the female increase (492 percent) was much greater than that of males (258 percent) (see Table 20).

It is important to note that while the transformative sector was the highest growth sector between 1960 and 1970, the producer sector was the highest growth sector between 1970 and 1980. Therefore, in Korea the increase of the tertiary sector followed the increase of the secondary sector with economic development, although the time gap is small.

### VIII. Conclusion and Implication

The purpose of this paper has been to focus attention on the ways in which the industry of Korea has been changing. We have examined various facets of the sectoral transformation, emphasizing the "how" of this change as well as the "who" in terms of the social characteristics of those occupying different industry positions. That is, we have focused on the presentation and analysis of data from the 1960, 1970, and 1980 censuses in the prior sections.

As discussed above, there have been dramatic changes in the structure of labor participation in the process of economic development. There was an increase of labor force participation between 1960 and 1970, but then there was little change in the labor force participation between 1970 and 1980. The proportion of the male labor force has been consistent over time, while that of the female labor force has increased. As in most developing countries, the job opportunities for females to participate in economic activity increased with economic development. In Korea, economic development has effects on the change of traditional values in females' roles, but also provides jobs for them. This phenomenon will continue for some time with continuing development.

In this section, we will make general and speculative comments on some of the consequences of the sectoral transformation, since little attention has been directed to that area. We emphasize the movement from the primary sector to the secondary and tertiary sectors, and its implications.

The industry changes over twenty years, as described in Section IV, have been very impressive. In 1960, more than 65 percent of the labor force was in the primary sector; it had declined to 38.5 percent in 1980. In contrast,

secondary sectors gained in proportionate share from 8.7 percent in 1960 to 27.6 percent in 1980 (an increase of more than three times). Tertiary sectors also increased 10 percent between 1960 (23.8 percent) and 1980 (33.9 percent).

Although it is hard to predict the labor force structure of 2000, we can expect that while the primary sector will continue to decline the secondary and tertiary sectors will increase. The agricultural industry of Korea is still a labor-intensive industry. With the introduction of new agricultural machines (e.g., tractors), a relatively smaller labor force will be needed, compared to previous periods. The continuing economic development will provide new job opportunities in the secondary and tertiary sectors. As a result, the labor force transformation from primary to secondary and tertiary sectors will continue. The diversification and the division of labor with economic development will lead to the increase of the service industry.

The mass of pre-existing unemployed and underemployed could participate in the economic activities in the process of economic development. However, it is also true that many labor forces are forced to work overtime under poor conditions and earn relatively lower wages because of the surplus of labor, all of which lead to job dissatisfaction as well as class inequality. With this in mind, let us consider the consequences of labor force transformation based on the condition of work, work satisfaction, and social class.

In the process of transferring from primary to secondary and tertiary sectors, a lot of the labor force became employed. The rapid economic development within a short period of time led to the imbalance of wealth distribution, as well as the process of working, and society. As a result, more people feel job dissatisfaction as well as powerlessness and meaningless than in

any prior period.

Workers experience constant work pressure because each worker is responsible for tending a large number of machines over a given area. Further, there is an inability to control the quantity of output, to determine the techniques of work, and to select tools and vary the sequence of operations, as most workers take part in quite standardized work processes. Manual workers have an inability to achieve a sense of individual purpose in the actual process of work. The traditional character of the labor force results in low job aspirations and feelings of self-estrangement. There is a high concentration of women in low skill industrial jobs. Involvement in jobs is also low due to the routine nature of work. These factors may lead to more class conflict.

As in most other countries, the proportion of self-employment in Korea has declined in the process of economic development. On the other hand, the proportion of employed increased over time because more specialized and organized market-oriented units are taking over former productive functions of household and community groups and other important structural changes have led to decline in self-employment.

As a result, a high proportion of the labor force have become wage laborers. Especially in the manufacturing industry, which employs mainly young females for simple workers, females are underpaid with overtime work and also work under poor conditions which lead to occupational diseases. Moreover, their living conditions are bad, because they cannot afford decent housing or nutritious foods with such low wages as are available in the urban areas where most factories are concentrated.

Another critical point in this study is that there are increases in professional and clerical workers. The increase of clerical workers has been particularly rapid. Clerical workers used to

have autonomy, as well as managerial roles, but their role became simple and routine with the diversification of occupations. They are one of the most likely groups to feel job dissatisfaction.

It is also important to note that there is an increase of service workers over time, though its increase is slow. Relatively increased per capita income, and the concept of a welfare state, have enabled some segments of the society to use services (e.g., education and health) which formerly had been the privilege of only a few. In conclusion, with the labor force transformation from primary to secondary and tertiary sectors, more people became employed and were engaged in routine and meaningless jobs which lead to job dissatisfaction.

Although the economic development provided jobs for labor forces who could not get jobs earlier, the poor working conditions, low wages, and overtime work have led to other problems (e.g., occupational diseases, class conflicts). If these phenomena continue without improvement, there will be a greater day between the social classes. Therefore, it is the time to reconsider the negative consequences of the labor force transformation, due to the rapid economic development pushed by the government.

Considering all of these situations, desirable social institutions should be established to solve these problems. Governmental policy should also be examined. Overall, the labor force transformation resulted in economic development, which contributed to the improvement of the Korean economy. However, it is also true that the labor force transformation caused some inhumanities (alienation, meaningless, powerlessness), which led to the negative effects on social structure.

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