

Study Report On Northeast Asian Labor Force Resource

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With the constant development of the economic globalization and grouping of the regional economy, with the development of liberalization of investment and trade, the reasonable development and utilization of the labor force will be further developed among countries and regions. Especially in the era of knowledge economy, as the carrier of knowledge and source of knowledge innovation, human resources have already become the most important force in economic development and have received more and more attention from all countries. In Northeast Asia, the economic development level of various countries has enormous differences. Along with the development of investment, trade and exploration of resources, the complementary advantage of labor resource is turning into realistic economic development power progressively. The development and utilization of the labor force is becoming an important field of international cooperation. This report probes into the state of the Northeast Asian regional labor force resource, current obstacle; in the development and utilization of the labor force resource, and the future regional cooperation mode of the labor force resource in Northeast Asia.

The state of human resource in Northeast Asia area

The population issue is a worldwide problem, which both developed and developing nations face. The countries in this area are facing different population problems as well, i.e. Population aging in Japan, population control in China, rising mortality and population reduction issues of Russia, etc. However, from the aspect of surmounting national bounds and cooperation in Northeast Asian region, the labor force is the thread that can link people with economy, and country with region. The labor force is an important part of the population. Therefore, we should depict the overall trend of population development of this area first, before analyzing the regional labor force resource state of Northeast Asia.

There are enormously different states of population in Northeast Asian countries (see table 1). In 1997, the population of China's mainland had already reached 12.400 million, accounting for about 1/5 of the population of the world. The population total of China is the largest, while the country with the heaviest population density is not China but South Korea, where there were 463 people each sq. km. in 1997. Japan was second, with 338 people each sq. km.; Russia and Mongolia have the lightest population density, with 9 people and 2 people each sq. km. respectively (see table 2).

Table 1. Total Population of Various Countries in Northeast Asia (In millions)

Country	1980	1985	1990	1995	1997
China	996.13	1 070.20	1 155.30	1 221.50	1 242.35
Three provinces in Northeast China			9993	10385	10517
Japan	117.06	121.05	123.48	125.47	126.07
South Korea ¹	38.12	40.81	42.87	45.09	45.99
Korea ²	18.03	19.89	20.36	22.10	22.84
Russia	138.84	143.33	148.28	148.14	147.75
Far east Area of Russia			803.2*	766.7*	
Mongolia	1.61	1.82	2.08	2.29	2.36

Source: Statistical Indicators of Asia and the Pacific, VOL XXIX, No.1, Mar. 1999, United Nations, P1.

Note: Data from China Statistics Year Book

The number is the population of Fareast Area of Russia in 1992. Wang Shengjin, "Analyses on International Labor Force Cooperation Development in Far East Area of Russia", Population Journal, 2000, Vol 6.

Table 2. Population Density of Various Countries in Northeast Asia (Person / per square kilometer)

Country	1980	1990	1997
South Korea	385	432	463
Japan	314	332	338
Korea	150	169	189
China	104	120	127
Russia	8	9	9
Mongolia	1	1	2

Source: Statistical Indicators for Asia and The Pacific, VOL XXIX, No.2, JUN.1999, United Nations, P1.

Table 3. Population Natural Growth Rate of Various Countries in Northeast Asia (percentage)

Country	1980	1985	1990	1995	1997
Korea	--	1.7	1.5	1.7	1.6
Mongolia	2.5	2.5	2.8	1.5	1.4
South Korea	1.6	1.0	1.0	1.0	1.0
China	1.3	1.5	1.4	1.0	0.9
Japan	0.9	0.7	0.3	0.2	0.2
Russia	--	0.7	0.4	-0.1	-0.1

Source: Statistical Indicators for Asia and the Pacific, VOL XXIX, No.1, Mar. 1999, United Nations, 2.

In over half a century after the Second World War, the countries in Northeast Asia have gone through population transition in succession. Population transition refers to the course during which

¹ refers to Republic of Korea

² refers to Democratic People's Republic of Korea

the mode of population reproduction changes from high fertility, high mortality, and low growth rate to low fertility, low mortality and low growth rate. In the course of population transition, with the population growth rate dropping, the quality of the population improves progressively and the population structure changes from the growing up type to the old age type. In 1997, South Korea, China and Japan had less than 1% population natural growth rate, and Russia's population grew negatively; while the population growth of Korea and Mongolia was relatively fast (see table 3).

China has implemented population control and family planning since the 1970s, and has made great achievement for over 20 years. Since the foundation of the state--1949, China's fertility rate has shown a downward trend with only slight fluctuation during some periods. After the seventies, the fertility rate dropped even more remarkably. China's average annual total fertility rate had already dropped to 4.01 in the seventies, and dropped further to 2.47 in the eighties (1980-1988). After entering the 1990s, especially during the later stage of the 1990s, China's total fertility rate was under the replacement level and China's natural growth rate had already dropped to under 1% in 1997. After having implemented the family planning policy effectively for several decades, China has entered the stage of low fertility and low growth. At present, about 19 million people are born in China each year, and 8 million people die, which gives a net population increase of about 11 million. It is estimated that the total population will reach 1,300 million in 2003. According to the prediction of experts, the total amount of China's population will reach its peak- about 1,600 million- during the year of 2040-2050 year.

Japan has gone through population transition already. In the following 10 years, Japan's population will grow negatively. The total fertility rate dropped to 1.34 in 1999, which was the lowest in Japanese statistic history. According to the prediction data of the United Nations, Japanese people will reduce by about 20 million by the middle period of the next century. In the future Japan will face severe issues of population reducing and population aging.

In South Korea, the fertility rate and growth rate have already dropped to a relatively low level and the country is also facing the population-aging trend. Since they began to pursue the population control policy taking "family plan" as the main content at the beginning of the sixties, the fertility rate of South Korea has been dropping continuously. The total fertility rate of South Korea reached 6.0% in 1960 and dropped to 1.7% in 1985. Its population natural growth rate reduced to 0.98% in 1997. The total population of South Korea was 46 million in 2000, and will exceed 50 million by 2015. In the latter half of 2030s, South Korea's total population will reach its peak, about 53 million people, then will reduce gradually.

Korea's total population grew negatively during the period of the Korean War at the beginning of the 1950s. After that, the population increased continuously, reached 10 million people in 1960, exceeded 20 million people in 1990, and doubled over 30 years. The population of Korea reached 22 million in 1995 (see table 5). According to the estimation result from the United Nations, by 2030, the population of Korea will exceed 30 million, and will reach its peak in the latter half of 2040s.

One important reason of the marvel created by the countries in East Asia lies in government's intervention on economic, social life, and on the birth policy. In the Northeast Asian area, Japan and South Korea have taken the controlling policy in various degrees; China has also taken the powerful

family planning policy. Therefore, with the fast growing economy in Japan and South Korea, the speed of the population transition is fast too. The same is true in China, which has spent 30 years to finish the transition, much faster than the western developed countries. Different from Japan and South Korea, China's population transition is superior to economic development. The fast population transition and the differences of economic development level lead to the completely different results of population development and labor force supply in surrounding countries of Northeast Asian area.

analysis on the state of regional laborer resource in Northeast Asia

1. Northeast area of China

China is an important member and a positive advocator in Northeast Asia. In addition, China has important economic benefits and security interests in this area, so, speaking from the broad sense, the whole of China is a part of Northeast Asia. At present the regional economic cooperation level is relatively low, and in Japan, South Korea and Russia, only local governments show interest in this economic cooperation. Therefore China relies mainly on local governments to participate in the Northeast Asian regional cooperation, namely three provinces in Northeast China - - Jilin, Liaoning, Heilongjiang.

Resources of labor force in the Northeast of China are abundant, but their education degrees are comparatively low. Here is China's traditional industrial, resource and energy base. The proportion of large and middle-sized state-owned enterprises is relatively big and the natural resources are abundant. Before the reform and opening up, the Northeast was an economic developed area of China. The industrial structure, urbanization level and income level were all in the national front row. After the reform and opening up, because China has adopted the non-balanced policy of developing, the center of economic development has turned from the hinterland to the coastal provinces in the southeast, and the economic status of the Northeast area was gone down gradually. Economic structural readjustment and the state-owned enterprises reform has led to the result that a large number of workers of state-owned enterprises have lost their jobs. The contradiction between supply and demand in the labor force was reached an unprecedented degree.

In the 1990s, the labor force in Northeast of China made a net increase by 16,220,000 people, up to 74,070,000 people in 2000; and during 2000-2010 will make a net increase by 16,530,000 people and reach 79,850,000 people (see table 4). At present, there is population of 2 million in unemployed state in the Northeast, which need 1,600,000 new employment opportunities to absorb the unemployed workforce and incoming workforce each year of the 1990s. Furthermore, the laborers in state-owned enterprises are 16,500,000; nearly 30% of them are redundant. According to conservative estimations, about 4,500,000 workers in state-owned enterprises are going to be laid off, shunted and reemployed. Therefore, the newly increased employment opportunities should be 2

million¹ each year.

Table 4. Labor Force Prediction of Three Provinces in Northeast China (10 thousand)

Year	Population at work age (15-59)	Newly increased labor force population	Net growth of labor force population
1991	6 777	180	162
1995	7 092	159	143
2000	7 407	162	146
2001	7 480	168	151
2002	7 560	175	158
2003	7 643	178	160
2004	7 722	175	158
2005	7 791	170	153
2006	7 844	164	148
2007	7 888	159	143
2008	7 922	155	140
2009	7 946	154	139
2010	7 958	155	140

Source: Managing Labor Migration in Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG 1994,P16

From the point of view of demand for labor force, economic growth and increase of investment are the most direct factors to influence increasing of employment. Generally thinking, when the investment and economy grow faster; the employment will increase faster too. However, when entering the 1990s, China's relationship between economic development and employment increase demonstrates new characteristics. Some studies indicate: During the "the Eighth Five-Year Plan", China's economic growth and increase of investment were the highest level in history, however, the increase of employment rate reached the lowest level in history. From 1990 to 1995, national investment in fixed assets increased at an annual average of 20.6% allowing for the price rise factor, GDP increased at an annual average of 11.9%, and the annual rate of increased employment was only 1.3%. The elasticity of employment increase is respectively 0.063 and 0.109.²

The proportion of heavy industry is relatively large in three provinces in the northeast of China, and the tasks are relatively heavy to adjust structure and lift large and medium-sized state-owned enterprises from a difficult situation. It is a very arduous task to solve the employment problem, owing to the factor of incoming labor force, worker lay-offs, surplus rural labor force shifts and employment increase slowing down. The northeast of China is the most abundant area of resource of labor force in Northeast Asia and the main supply source of the labor force. To dispose the labor force in Northeast Asian area in a greater degree not only can promote economic development of

¹ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, Aug 1994,P9.

² Hu Angang, Analyze on Employment Situation in China, Management World, No.3, 1997.

this area, but also can alleviate the surplus workforce problem of three provinces in the northeast of China.

2. Korean Labor Force

2.1 Quantity of Labor Force and Employment System

Korea's total population and population at work age (work population is the people of 15-59 years old. Since 1975, Korea has implemented an 11-year compulsory education, education age lasting to 16 years old. Therefore, work age in Korea is regulated to be 16 years old) grew negatively at the beginning of 1950s, and then kept fast growth. The Labor force population grew at the rate of increase of 2.3% - 2.8% from the latter half of the 1950s to the latter half of the 1960s. The labor force increase rate of whole the seventies is more than 3.3%. The first half of the eighties, labor force increased up to the peak- 4.0% and then dropped suddenly.

Table 5. Total Population and Population at Work Age

Year	Total Population (thousand)	Population at Work Age (thousand)	Proportion of Population at Work Age (%)
1950	9 488.0	5 009.7	52.8
1955	8 848.0	4 697.3	53.1
1960	10 525.0	5 399.3	51.3
1965	12 061.0	6 054.6	50.2
1970	14 263.0	6 931.8	48.6
1975	16 310.0	8 248.3	50.6
1980	17 666.0	9 698.6	54.9
1985	18 942.0	11 800.9	62.3
1990	20 363.0	13 602.5	66.8
1995	22 097.0	14 628.2	66.2

Source: World Population Prospects: The 1996 Revision, U.N.

Table 5 shows that because of the Korean War, the labor force population of 1955 reduced 31,240,000 compared with that of 1950. The population at work age is the supply source of labor force, so since the Korean War finished, the scale of population at work age had become larger constantly, which indicates that labor force population has increased relatively.

Under the planned economic system, all economic activities engaged in by laborer are arranged through the plan. "Korea Labourer and Office Clerk Work Decree" was made in 1946; later on "Socialist Labor Law" was made in April of 1978. This labor law stipulates that it is each citizens' right and obligation to work and the laborer should work for eight hours, rest for eight hours, and study for eight hours. Besides, Korea carries out the policy that the whole people obtain employment and "eliminate the unemployment", so the labor participation rate is very high. The labor participation rate of people at work age in 1960 was 60.3%, and rose to 82.7% in 1976. Because Korea implemented 11-year compulsory education in 1975, the low age labor participation

rate began to drop, and dropped to 79.6% in 1980. According to the census result of 1994, at the end of 1993 in Korea, the participation rate of laborers above 16-years-old was 76. 0%, among them man's participation rate was 84. 6%, and women's participation rate was 68. 9%³.

For a long time under special international environment, and insufficient fund for economic development, Korea has put a large amount of labor into work and has adopted a policy of "accumulating labor" in order to drive industrialization development, which leads that structural shortage in light industry and slow improving of people's living standards. For a long period, Korea has pursued the policy of whole people's employment. However, it is the poor efficiency and low capital accumulation that is behind the whole people's employment. On the other hand, under planned economic system, the poor efficiency of labor force has encouraged the trend of expanding employment to a certain extent.

2.2 Reason for Insufficient Labor Force

Insufficient labor force of Korea mainly displays on rural laborer's shortage. Reasons for it include: Industrial development policy, unreasonable distribution of labor force in regions and trades, international political factors, etc. The following several points are summarized:

Table 6. Distribution in Departments of Korean Labor Force (%)

	1960	1963	1986	1987
Workers in state owned enterprise	38.3	40.3	56.3	57.0
Staff in government office	13.7	15.1	17.0	16.8
Farmers	44.4	42.8	25.9	25.3
Workers on cooperation farm	3.3	1.9	0.9	0.9

Source: Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG 1994,P19.

(1) The policy that heavy industry has priority of development leads to the fact that demands for urban laborers increase, and the demand is mainly satisfied with the migration of rural laborer. The development of the heavy industry has improved the industrialization level of Korea and the workforce's employment structure. During 1967-1987, the rural laborer's proportion dropped by a large margin, while the industrial worker's proportion rose notably (see table 6). Because the agricultural modernization level is relatively low and the population in the countryside has reduced rapidly, agricultural labor shortage is very serious. Therefore, in busy farming seasons, workers, students and army soldiers had to go to the countryside to help farm work..

(2) In order to increase military strength, the Korean young men must serve in the army, which makes the laborer between twenty and fifty years old insufficient. There were 1,200,000 soldiers in Korea in 1990,accounting for approximately 6% of the population. If the tense relationship between north and south Korea is relaxed, thousands of servicemen would enter the labor market and the

³ Central Bureau of Statistics, Tabulation on the Population Census of the Democratic People's Republic of Korea (31 December 1993), DPRK, 1995.

workforce supplies would increase.

(3) For finishing construction project planned by the state, the workforce was put into those large projects centrally, which makes further shortage of the labor force.

(4) Another important factor that causes the workforce's shortage lies in the issues of efficiency of employment under the public ownership and the top-heavy problem of industrial structure, neither of which can be ignored.

2.3 Prediction on the Labor Force

According to the prediction of relevant experts, from the middle period of 1990s to 2010, the number of Korean workforce will increase fast, after 2010, the workforce's growth rate will slow down gradually (see table 7). Namely the population of workforce in Korea will exceed 14 million in 2000. In the first 10 years of the 21st century, the workforce population of Korea will increase to 2,300,000 people, in the second 10 years it will increase to 1,500,000 people. The workforce's population will exceed 18 million people by 2020. At the end of the third 10 years, the trend of the workforce increase will subside sharply, by 2030 labor force population will reach 19 million.

Table 7. Prediction on Annual Average Growth Rate of Labor Force Population in Korea.

Period	Annual Average Growth Rate (%)
1995-2000	1.43
2000-2005	1.46
2005-2010	1.55
2010-2015	1.13
2015-2020	0.62
2020-2025	0.19
2025-2030	0.20

Source: Wang Shengjin, Yin Hao, Present Situation and Predict of Labor Force in Korea, Northeast Asia Forum, No.3, 1998.

Korea implements policy of planned economy and the whole people's employment, labor force participation rate is very high. Even so, labor shortage especially rural labor shortage is still perplexing Korea. If we use efficiency to weigh workforce supply and compare Korea with China, the state of present Korea is similar to China in planned economy period. Under the condition of market economy, improvement of China's rural labor productivity and the melting apparently of state-owned enterprise recessive unemployment lead to that workforce's surplus problem is unusually outstanding. If Korea's situation is just like that of China, there will also exist the inefficient planned economy and recessive unemployment of the state-owned enterprise in Korea. Then, Korean labor shortage will not reach the present degree, on the contrary, Korean labor force may be in surplus. With the deepening of the economic reform and improved relations between north and south, the labor shortage and unreasonable distribution state will be improved to some extent, and the potential labor force surplus problems may be more serious.

3. Far East Area of Russia

The former Soviet Union has given priority to the development of heavy industry. Therefore, the economic distribution is highly concentrated at the Europe area with the center of Moscow. While, the Far East Area is abundant in resources and is of a critical strategic position. Because the Far East Area is far away from political, economic, culture and geographical center of Russia, infrastructures are relatively poor, and the living condition is very arduous. A large-scale population immigrated into and emigrated from this area, which seriously influences the population stability in this region. Under a long-term planned economy system, the demand for labor force in this area is satisfied with planned migration by other areas of the former Soviet Union.

At the beginning stage of developing in the Far East Area, population growth was mainly by domestic migration, especially during the period of 1926-1939 and 1940-1958. The strengthening of the development in this area and planned immigration made the speed of population growth up to the highest in former Soviet Union. In 1926-1935, the population growth of the former Soviet Union was 16.9%, and that of Far East Area was 89.3%. In 1940-1958, population growth of the former Soviet Union was 8.4%, and the Far East had increased by 62.4%. From 1959 to 1970, population migrating to Far East Area dropped to some extent; the proportion of natural population growth in population growth up to 82.5%, the proportion of immigrant in population growth was 17.5%, in the same period, the population growth rate was only 1.8%⁵.

Table8. Change of Population in Far East Area of Russia

Population Growth (10thousand)	Annual Average		Component of Population Growth Rate			
	1979-1988	1989	1979 - 1988		1989	
			Proportion of Natural Growth	Proportion of Migration Growth	Proportion of Natural Growth	Proportion of Migration Growth
Former Soviet Union	98.50	66.29	81.53	18.47	87.49	12.51
Far East Area of Russia	11.22	6.98	70.18	29.81	100.29	-0.29

Source: Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG1994, P42.

After 1970, the population migration from the former Soviet Union to the Far East Area increased to some extent. In 1971-1975, population growth of the Far East Area was 9.9%, while that of the former Soviet Union only was 3.1%. Meanwhile, the proportion of immigration in population growth reached 38.3%. As the table illustrates, in 1979-1988, the population of the

⁵ , Economic Prospect of Far East Area in Russia, China Foreign Economic Trade Press, 1995, P35.

former Soviet Union grew at an annual average of 9,850,000, and the population of the Far East Area increased to 11,220,000. In 1979-1988, during the population growth of the former Soviet Union, the natural growth was 81.53% and migration growth was 18.47%, while nearly 30% of population growth was migration growth in Far East Area. Until 1990, the population growth rate of the Far East Area was still higher than the Russian Federation's average level. Population growth of this area to a great extent depends on the population migration. In this period, a permanent job needed 7 people to finish stage by stage⁶.

In the middle period of the 1980s, the proportion of domestic migration in the Far East Area population growth dropped gradually, and the proportion of population moving back to European area rose relatively. In 1989, it was the first time that the population emigration was larger than that of immigration in this area, which led to the population dropping down in 1990. In 1991, negative population growth appeared in this area for the first time in record.

In 1992-1995, the Russian Federation and the Far East Area general population both grew negatively (see table 9), and about 36,490,000 people are the net reduction in Far East Area, among them natural population growth is -8,100, and the net emigration population is 35,680,000.

Table 9. Change of Population in Far East Area and Russian Federation in 1992-1994 (10 thousand)

	Total Population				Total	Natural	Migration
	1992	1993	1994	1995	Population Growth	Growth	Growth
Russian Federation	14870.40	14867.30	14836.60	14824.90	-45.50	-185.98	140.48
Far East Area	803.20	790.00	778.80	766.70	-36.49	-0.81	-35.68

Source: Russia Statistics Bureau, <http://www.region.ru/rauios.nun>.

In the 1990s, the population in the Far East Area began to reduce. Especially the net emigration of population made the workforce shortage more serious. Besides the change of population itself, the changes of social economic environment and condition had exerted an important influence in the supply and demand for labor forces.

First of all, the industrial structure adjustment aggravated the labor force structural shortage of the Far East Area. The Far East Area faces workforce's shortage problem throughout the course of developing. Before the middle period of the eighties, labor force insufficiency was remedied with natural population growth and high-density population migration. After the middle period the eighties, the speed of the labor force growth dropped rapidly, the rate of annual average growth dropped from 2.2% in the seventies to 1.15% in the eighties, and workforce's rate of growth was -0.2% in 1991. On the other hand, after the Soviet Union disintegrated, Far East Area entered an economic structural readjustment period, the fast development of commerce and other service trades made the workforce redistribute among various industries. For example, in Maritime Province (primorye region), workers of manufacture have already dropped from 74% in 1991 to

⁶ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG 1994, P44

70% in 1992. In addition, the number of workers in the service department increases constantly; the fastest-rising trade is financial insurance (112%) and administrative department (119%)⁷. The workforce of construction, agriculture, mining industry and some manufactures reduce gradually. The same phenomenon appeared in other places of Far East Area.

Secondly, after the Russian economic reform, its economy decelerated sharply. The insufficient employment and recessive unemployment displayed gradually, and because of the reducing armaments the soldiers transferred to another work, which not only was an important workforce source to alleviate the insufficiency but also was an important reason that the workforce moved out from the Far East Area. Russian economy's worsening led to the simultaneous existence of labor force insufficiency and surplus in this area. Workers with advanced technology and high salary are in liberal supply, while the physical workers with low salary are insufficient. Abominable weather, lacking of housing and relatively worse urban life facilities have made a lot of high-qualified workforce shift out and damage the reservation of manpower resources in the Far East Area of Russia.

Third, disintegration of the Soviet Union and the economic transition of the Russian Federation destroyed the traditional relations between the Far East Area and the other nations and areas. It cut off the direct economic cooperation, personnel exchange and the interflow of commodities of Far East Area with the joined republics of the former Soviet Union, which influenced economic development seriously and dwindled the range of workforce exchange.

Fourth, Because Russia's economy continuously developed slowly, national power dropped, national defense expenses cut down, the production of military enterprise dropped and landed in a predicament. The military enterprises are state-owned enterprise controlled by the Russian Federation, and the local government lacks the administrative power to these enterprises, so the military enterprise's advantages of technology, talent and labor force was not brought into effect and consequently the reasonable utilization of the labor force resource was restricted in Far East Area.

The insufficient workforce in Far East Area directly influenced the economic development and restrained development of resources and agriculture.

4. Japan

4.1 Increase of Total Population and Labor Force

The total population of Japan was about 71,900,000 in 1940. After the Second World War, Japan experienced the transient period of " baby boom", and the total fertility rate was 4.54% in 1947. In the 3 years from 1947 to 1949, about 2,600,000 to 2,700,000 people had been born each year⁸. At that time, people's living standards were extremely poor, even the basic materials for living such as clothing, food and houses which could not be satisfied, so overpopulation consciousness was very strong in national people's mind. However, Japan made the " Aristogenesis

⁷ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG1994, P21.

⁸ Wang Shengjin, Kuroda Population, Population Journal, No.2, 1985, P8.

Protect Law" in 1948, legalizing abortion and implemented numerous induced abortions. This law's implement action and the popularization of family planning made the birth rate reduce sharply. The number of people born in 1957 was 1,570,000, reduced more than 1 million people compared with the peak period. The total fertility rate reduced to 2.04, and the birth rate dropped to 17.2‰, the half of 34.3‰(1947) in peak period⁹.

In the prewar period, the rural population birth rate was very high, and the elasticity of workforce supply was relatively great. While in the period of top economic growth after the war, the state changed fundamentally. There were enormous differences between the urban birth rate and the rural birth rate before the war, but after the war, with the raise of the national living standard, the rural birth rate dropped, and the differences of the birth rate between urban and rural areas was already extremely small in 1965¹⁰. The total fertility rate dropped to 2.05 in 1974. It took Japan only 30 years to complete the population transition.

The speedy decline of birth level is the main reason that Japan's workforce supplies reduced relatively rapidly. During 1950-1960 years, the Japanese workforce increased at an annual average of 80,370,000 people; in 1960-1970, the workforce's population increased at an annual average of 89,370,000 people, and in 1970-1980 the workforce population dropped to 39,100,000 people, (see form 10). Meanwhile, the Japanese economy grew at top speed, the demand for the workforce increased constantly, which resulted in Japan's labor shortage after the 1980s.

Table 10. Labor Force Population and the Industry Components of Employed Population in Japan (1950-1995)

Year	Labor Force (thousand)	Employed Population			
		Total (thousand)	The Primary Industry(%)	The Secondary Industry (%)	The Tertiary Industry (%)
1950	36 347	35 626	48.5	21.8	29.6
1960	44 384	44 042	32.7	29.1	38.2
1970	53 321	52 593	19.3	34.0	46.6
1980	57 231	55 811	10.9	33.6	55.4
1990	63 595	61 682	7.1	33.3	59.0
1995	67 018	64 142	6.0	31.6	61.8

Source: Population Statistics Data. National Social Security. Population Study Institute 1997, P129, 135.

4.2 The Insufficient Labor Force

After the eighties, because the proportion of agricultural workforce had dropped to a very low level and could not to continue to offer laborers to the secondary and the tertiary industries, the issue of labor shortage was outstanding day by day. The reasons that caused Japanese labor shortage are the following:

⁹ Wang Shengjin, Kuroda Population, Population Journal, No.2, 1985, P8.

¹⁰ Okazaki Youichi, Transition of Labor Force in Japan, Industrial Transition and Population in Japan, Asian Population Development Association, 1993, P26, 27.

(1) Industrial structure upgrading. During the period of top economic growth from the 1950s to the middle period of 1970s, the labor force needed by industrialization development were mainly supplied by the transition of agricultural workforce.

Following Japan's fast industrialization course, the Japanese employment structure has changed deeply. In 1950, proportion of the primary, secondary and tertiary industries in Japan were respectively 48.5%、21.8% and 29.6%, while in 1980, that was respectively 10.9%、33.6% and 55.4%. The employment proportion of the primary industries further reduced to 6.0% in 1995, and that of the secondary industries reduced to 31.6% (see table 10).

Industry transition caused the redistribution of population and workforce among different areas. The number of population transition among Japan counties was 2 million people in the 1950s, 3 million in the 1960s, and increased to 4 million people in 1970s. The majority of them moved to Tokyo, Osaka and Nagoya, the three economic high-speed developed metropolises. The moving population was mainly young people, who mainly moved from the countryside to industry areas. The population fast centralized to the three metropolises, which made the population age structure become younger. In addition, the population of rural area reduces, and the aging degree is higher. As the workforce of rural area reduces, the ability that the rural laborer shifts to the city reduces greatly. On the other hand, when the laborers choose the employed post, they are unwilling to engage in the work in society and family service, construction and 3 D (Dirty, Dangerous, Difficult) trades, etc. The labor shortages in these trades are getting more serious.

(2) Reducing of labor force supply. As we have mentioned above, the fertility rate of Japan dropped rapidly after experiencing transient "baby boom" after the war, Japan spent 30 years to finish the population transition, and the ability of supplying labor force reduced.

The workforce supply was also influenced by the change of labor interest rate. In the period of high speed economic growth, the rising of school attendance rate lead to the fact that the young workforce reduce. In 1955, the rate of workforce of 15-19 years old was 52.2%, 38.1% in 1965, and 22.9% in 1975, which dropped to under half of 1955. Consequently it results that absolute number of young workforce of 15-19 and 20-24 years old reduced, the number of middle-aged workforce relatively increased, young workforce participating rate reduced, and the age structure of employed laborers became older and older.

With the Japanese workforce's shortage, Japanese population aging became more and more serious. In 1970, the proportion of people above 65 years old was up to 7.07%, and then Japan had entered aging society already. By 1996, this proportion had already been up to 15.14%, which formed the situation that population aging and labor shortage are compatible.

According to prediction of Japanese Ministry of Labor, by 2010 even if all the old men and women are employed, Japan will still lack 1,860,000 in the workforce¹¹. The result of the research into 4,500 enterprises by Japan Economic Planning Department shows that nearly 70% of the enterprises lack the workforce at present, which is up to 1 million. With the influence on management by lacking of labor force, the enterprises had to lengthen working hours, and cancel

¹¹ Japan Economic News, JUN. 19,1990,

holidays, so that service charge and cost rose. According to the statistical data of Japan government, if Japan wants to keep the economic growth at the rate of 4% until doomsday of this century, about 600,000 workforces are needed to be employed every year. But the current growth level of workforce is unable to satisfy the enterprises' demand for the labor force.

Because Japan restricts immigration of non-technological workforce, the number of foreign workforce legally entered Japan is limited every year, and this cannot satisfy the request of the enterprises. In this case, Japanese enterprises have to employ foreign workers illegally, so more and more foreign laborers are employed. The statistics shows that there were 300,000 illegal foreign laborers in Japan in 1990. The illegal foreign workers obtained visas by way of travel, study, and the forging of marriage relation. Among them many people have already become the main workforce of the small and medium-sized enterprises. An investigation of Japan Ministry of Justice indicates that about 60% of the small and medium-sized enterprises have employed the illegal foreign workforce.

4.3 Prediction of Labor Force Market

According to the prediction of the labor force population by economic review conference (see table 11), from the end of the 20th century to the beginning of the 21st century, the increasing degree of workforce population will dwindle gradually, and will even reduce definitely. And with Japan's economic development and aggravation of population aging, the demand for non-technological workforce increase and the contradiction will be further more outstanding between workforce supply and demand.

Table 11. Prediction on Labor Force (10 thousand)

Year	Total	Male	Female
1990	6 366	3 861	2 504
1995	6 610	3 912	2 698
2000	6 739	3 977	2 762
2005	6 717	3 953	2 764
2010	6 603	3 851	2 752
1990-1995	0.8%	0.3%	1.5%
1995-2000	0.4	0.3	0.5
2000-2005	0.0	0.3	0.0
2005-2010	0.3	0.5	0.0

Source: Ito Tatsuya, Predict of Labor Force Population, Labor Force Population and Its Development in Japan, Series of Population Development 5, Asian Population Development Association, December,1986,

According to the demand for the Japanese workforce, the issue of insufficient labor force in construction, service trade, especially in trade simply centered by labor is very great. For example, the " investigation on labor economic tendency "(Ministry of Labor) shows that the rate of enterprises with insufficient labor force was 67% in the service trade, 57% in the manufacture trade, up to 54% in the loading and catering trade in February 1990, which created the highest record

since the beginning of investigation in November 1984.

Table 12. Predict of Labor Force Demand and Supply Balance (2000-2020) (10 thousand)

Year	Supply	Demand		Balance		Insufficient Rate(%)	
		High	Low	High	Low	High	Low
Efficient Labor Supply: low predicted							
2000	6 415	6 717	6 345	-302	70	4.7	1.1
2010	6 284	7 275	6 599	-991	-315	-15.8	-5.0
2020	6 235	7 835	6 843	-1 600	-608	-25.7	-9.8
Efficient Labor Supply: high predicted							
2000	6 767	6 717	6 345	50	422	0.7	6.2
2010	6 717	7 275	6 599	-558	118	-8.3	1.8
2020	6 708	7 835	6 843	-1 127	-135	-16.8	-2.0

Source: Ohbuchi Hiroshi, Japan Labor Force Market in 21 Century---Issue of Foreign Laborer, Year Book of Jyousai Graduate College, Mar. 1990, P42.

Note: Negative represents the insufficiency of labor force; percentage of labor force supply.

Professor Ohbuchi Hiroshi predicted the Japanese labor market of future as follows (see table 12): Workforce's effective supply coefficient reduces progressively during 1988-2020 years, and the insufficient workforce not only exists in some limited industries and small and medium-sized enterprises, but also expands to all industries gradually. It is estimated that the insufficiency will exert a extremely serious influence in the 21st century. The middle-aged and old workforce above 45 years old will account for more than half by 2020. The labor participation rate of woman will increase, and rate of women at 20-34 years old entering labor market will increase also, which may make the very low birth rate reduce further¹².

5. South Korea

5.1 South Korean Labor Force

After foundation of the state, South Korean population increased fast. In 1961, the total population of South Korea was 267,660,000 people; the natural growth rate was 3.01%. In 1967, South Korean population exceeded 30 million, reached 301,310,000 people, while the natural growth rate was reduced to 2.36%. In 1984, population exceeded 40 million; the natural growth rate further reduced to 1.24%. After that, the population growth rate has been fluctuating in small range about 1%.

Table 13 reflects the state of labor force and the trend of employment. After 1965, except the period of Asian financial crisis in 1997, the growth rate of employment has been higher than the growth rate of labor force, and the rate of unemployment has the trend of reducing gradually.

¹² Ohbuchi Hiroshi, Japan Labor Force Market in 21 Century--- Close Related to Foreign Labor Force,

Table 13. State of Labor Force and Employment in South Korea (thousand)

Year	Population at 15 years old and above	Employed population	Average employment growth rate in 5 years %	Unemployment rate %
1965	---	8 112		---
1970	18 118	9 617	3.17	4.4
1975	20 918	11 692	4.32	4.1
1980	24 463	13 683	3.41	5.2
1985	27 553	14 970	1.88	4.0
1990	30 887	18 085	4.16	2.4
1995	33 664	20 432	2.60	2.0
1998	35 362	19 984	-0.44	6.8

Source: Korea Economic Planning Institute, Various Years Report of Population in Economic Activity.

5.2 Issue of Insufficient Labor Force

At one time, South Korea was a workforce-exported country. Since the sixties, South Korea combined the contracted projects and the export of labor services, which enable workforce's extensive outflow. In 1975 and 1976, South Korea signed large quantities of construction contracts with the countries in the Middle East. The export of labor service reached the top amount about more than 200,000 in 1981, and 80% of the South Korean workers abroad were in west Asia and Southeast Asia area.

Through the overseas service cooperation, South Korea has learnt new technology in business administration, production technology and technical ability so that the quality of enterprises and workers are both improved greatly. In addition, the export of labor services increased foreign exchange income, balanced international income and expenditure, offered more employment opportunities, and made important contribution to South Korean economy. Up to the end 1985, the total amount of contracts signed by South Korea of overseas construction projects and export of labor force reached 79 billion dollars, in which 62 billion dollars was completed and the net foreign exchange income was 15,700 million dollars. The overseas export of labor services was up to the largest amount 200,000 people¹³.

The Middle East is the main area for South Korean overseas contracted projects and export of labor services. However, when entering the eighties, especially after 1983, the South Korean population of contracted project and labor service in the Middle East reduced obviously, from 196 850 people in 1982 dropped to 95275 people in 1986¹⁴.

From latter half of the eighties, South Korean economy grew rapidly, especially the development of industry of processing; a lot of labor force in other areas of Asia flew into South

¹³ Chen Longshan, Haican Construction Contracted Project and Export of Labor Force—Studies on Relationships of South Korean Foreign Economy, Jilin Social Science Institute, 1986,P22.

¹⁴ Chen Longshan, Haican Construction Contracted Project and Export of Labor Force—Studies on Relationships of South Korean Foreign Economy, Jilin Social Science Institute, 1986,P228.

Korea. Meanwhile, the workforce flown to other countries in the eighties came back because of the powerful economic growth of South Korea. In the beginning stage of 1980s, the returning population was 1000 people every year but about 7000 people in 1991¹⁵.

Table 14. Labor Force Insufficiencies in Various Trades of Manufacture in 1994

Trade	Population Needed	Insufficient Population	Foreign Students needed
Total	1 192 854	251 511	80 621
Machinery industry	205 970	26 512	4 291
Casting industry	27 400	2 500	500
Heat treatment industry	945	147	80
Gold-plating industry	9 000	2 400	1 200
Metal industry	38 030	6 781	2 470
Precision Chemistry industry	11 377	1 216	920
Fiber industry	563 899	165 100	54 250
Industry of Article for daily use	62 330	16 030	3 270
Shoes manufacture industry	35 777	3 800	3 800
Leather industry	20 000	3 000	1 000
Papermaking industry	62 190	10 046	3 500
Plastic industry	42 771	5 266	2 120
Medicines industry	22 533	2 263	1 580
Electronics industry	29 200	3 640	1 160
Electrical machinery industry	61 432	2 800	480

Source: Industry and Commerce Department of South Korea, Newest Labor Statistics, May 8, 1994.

Entering the 1990s, South Korea changed from the country of labor force net export to net import. The workforce's structural shortage issue became outstanding gradually; the import of both legal and illegal workforce has been developed. In 1991, nearly 300,000 foreigners entered South Korea, among them 42,000 people remained there illegally. Seen from nationality, Chinese are the greatest in number with nearly 18,000 people, secondly are the Filipinos with 16,000; and third are the Nepalese with are 2,000. In addition, the need of the foreign direct investment made the domestic training of foreign workforce legalized. Nearly 1,500 trainees entered South Korea in 1992.

In 1994, the whole manufacture industry lacked 250,000 workers, the vacancy rate was up to 26%, among them the vacancy rate of the 3 D industries such as textile, leather process and shoes manufacture, etc. was more serious, up to 30% (see table 14).

¹⁵ Nagayama Toshikazu, *New Migration of Asian Labor Force and Capital Investment—Centered as Southeast Asia, Asian Industrial Transition and Population*, Asian Population Development Association, 1993, P99.

Analyze on Labor Industry State in Northeast Asia

Industry mutual complementarity is one of the important respect in Northeast Asian's regional economic complementarity, The structure of labor force is not only the important measure index of the industrial structure, but also the foundation of industry cooperation. Analyzing the state of workforce's industrial structure in Northeast Asia has a very important realistic meaning for the development of the labor force in this area.

1. International Comparison of Labor Force Industrial Structures in Northeast Asia

The industry structures of various countries in Northeast Asia (see table 15) from 1985 to 1988 show that: Japan has the most modern industrial structure, the proportion of the primary industry is minimum, still less than 10%; the proportion of the tertiary industry is the largest, close to 60%. The industrial structure of South Korea is just alike that of Japan, only with the difference that South Korea's proportion of primary industry is double of Japan, the proportion of tertiary industry is slightly smaller than Japan, and hardly have the difference of the secondary industry between two countries. So, both Japan and South Korea have the modern industrial structures. The industrial structure of Korea lags behind Japan and South Korea, for its proportion of the primary industry is obviously larger than that of Japan and South Korea and the proportion of the tertiary industry is smaller than them. China's industrial structure is the most backward in these four countries, with the characteristics that the proportion of the primary industry is too large, while the proportion of the secondary industry and the tertiary industry is too small. Among the four countries, Japan and South Korea belong to the advanced industrial structure, but China belongs to the backward industrial structure.

Table15. Labor Force Industrial Structure of Various Countries in Northeast Asia 1985-1988 (%)

Country	Agriculture (the primary Industry)	Industry (the Secondary Industry)	The Tertiary Industry
China	60.6	21.9	17.5
Japan	8.1	33.7	58.2
Korea	42.8	30.3	26.9
South Korea	19.0	27.4	53.6

Source: Japan Statistical Yearbook (1989,1990); China's number comes from China Statistical Yearbook (1989).

2. Japan

After the Second World War, the labor force industrial structure transition of Japan is the fastest and its structure is the most advanced in Northeast Asian area. At the end of the World War II, Japan has once formed the labor force industrial structure that mainly relied on agriculture, because the economy was destroyed in wartime and a large amount of surplus population flew into countryside. In 1947, the proportion of employed population in the primary industry had increased to 54.2%, that proportion of the secondary industry dropped to 22.6%, and form the backward

structure of 54:23:23. But in the course of economy recovery which followed, Japan's labor force industrial structure quickly resumed to the level prewar. In 1955, the proportion of the employed population of the primary industry had already dropped to 41.2%, namely dropping by 13 percentage points than 8 years prior; meanwhile, the employed population proportion of the secondary, and tertiary industries raised obviously and the structure did not rely on agriculture any more. During the 20 years after this, with high-speed economic development and modernization, the Japanese workforce's industrial structure has been transiting thoroughly. In 1975, the proportion of the employed population in the primary industry dropped to 13.8%, while that of the tertiary industry had increased to 51.8%. The situation of more than the half people engaged in agriculture had changed to that of more than half engaged in the tertiary industry, thus Japan had basically completed the modern transformation of employed population (see table 10). In 1998, the proportion of the employed population in the primary industry further dropped to 5.2%, and in the same period the proportion of the tertiary industry rose by 40 percentage points and reached 63.3%. So, during the half century after the war, Japan has transited from a backward labor force industrial structure mainly relied on the agriculture to the highly modern industrial structure with more than sixty percent of workers engaged in the tertiary industry.

By making a general survey of Japan's change of workforce's industrial structure in the half century after the war, we can see a basic principle: The proportion of the employed population in primary industry has been dropping by a large margin all the time, the proportion in tertiary industry rises sharply; the proportion of employed population in the secondary industry has the trend of first rising and then dropping, namely in the first 40 years after war, the proportion was rising and reached its highest at 36%, and then showed a tendency to drop after the middle period of the eighties. This is because through the course of Japanese modernization, the secondary industry went through abundant and rapid development on the basis of new technology; the speed of expanding the industrial production scale had exceeded the speed of adopting new technology and improving labor productivity. Later in the course of increasingly automated, information-based development, the secondary industry still kept a quite fast developing pace.

Measured by the standard of the labor force industrial structure, Japan has entered the postindustrial society. However the labor market system of Japan is different from that of American-European countries. Japan takes lifetime employment system, combining the Confucian's cultural traditions such as the grade ideas, cooperative spirit and group reorganization. Culture closely links the workers and the enterprise, promoting the enterprise's development and creating the economic miracle in Japan. However, with the change of the supply-demand relationship of the labor force, the lifetime employment system made the labor market lack flexibility, its drawback became more and more outstanding, and aggravated Japanese workforce's shortage to a certain extent and restricted the development of Japanese economy in the 1990s.

3. South Korea

After the war, the South Korean transformation of labor force industrial structure though started late and with low starting point, progressed quickly in the later stage, and finished the

modern transformation basically in the eighties. It is the fastest and the most successful country to transfer the industrial structures among Northeast Asian developing countries. When World War II had just finished, the South Korean economy was extremely poor, most employed population were engaged in agricultural production, and the unemployment rate was still up to 24% until the end of the fifties. In 1960, the proportion of the employed population in the primary industry reached 66%, but that of the secondary industry was only 9% (see form 16). The economic level was very low, per capita gross national product was only 87 dollars in 1962¹⁷.

However, in the 20 years after this, with economic recovery and quickening modernization, the speed of the workforce industrial structure transition of South Korea accelerated rapidly. In 1980, the proportion of employed population in the primary industry dropped to 37%, nearly dropping by 20 percentage points than that of 1960, and the proportion of the secondary industry had risen up to 27% sharply, and doubled that of 1960. During the short 20 years, the workforce industrial structure of South Korea had transferred greatly. The situation changed from 2/3 people engaged in agriculture to more than sixty percent engaged in the secondary, tertiary industries. In addition, the modernized level of economy was promoted by a large margin, the per capita gross national product increased to 1597 dollars, increasing more than 17 times compared with 1962. The annual average growth rate increased up to 15.7%¹⁸.

Table 16. Change of Labor Force Industrial Structure of South Korea (%)

Year	The Primary Industry	The Secondary Industry	The Tertiary Industry
1960	66.0	9.0	25.0
1970	48.2	14.2	37.6
1975	45.7	19.1	35.2
1980	34.0	22.5	43.5
1985	24.9	24.4	50.6
1990	17.9	27.6	54.5
1995	12.4	23.6 (30.6)	64.0 (57.0)
1998	12.4	19.6	68.0

Source: Major Statistics of Korean Economy, National Statistical Office, Republic of Korea, Sept. 1999, P136.

Note: In South Korea, the tertiary industry includes the construction industry, so the proportion of the tertiary industry is a little high, while the secondary industry's proportion is a little low. That number in the bracket is estimated according to the international standard.

In 1995, according to the statistics of South Korea, the proportion of employed population in the primary industry further dropped to 12.5%, and the proportion of the tertiary industry increased sharply to 64.0%. That industry situation of more than sixty percent employed population engaged in the primary industry changed to that of sixty percent employed population engaged in the tertiary industry. So far, the basic transition of the South Korean labor force industrial structure has taken

¹⁷ Zhang Yunling, *Mode of Korean Market Economy*, Economic Management Press, 1997, P 23-24.

¹⁸ Zhang Yunling, *Mode of Korean Market Economy*, Economic Management Press, 1997, P 24-25..

place and formed the new labor force industrial structure among the primary, secondary, and tertiary industries. Considering the above-mentioned factor that the proportion of employed population in the tertiary industry was over-evaluated because of the construction industry included, we use the data that World Bank calculated according to the international constant requirements instead, and then the basic industrial structure will not change. For example, according to the South Korean statistics in 1990, the proportion of the employed population in the tertiary industry was 54.5%, and in the same term the statistics published by World Bank was 47%, namely the former is 7.5 percentage points higher than the latter. If we remove 7 percentage points from the data of the employed population in the tertiary industry in 1995, then the proportion should be 57%, namely about sixty percent of the employed population was engaged in the tertiary industry. The proportion of the secondary industry should be increased to 30.6% correspondingly. Therefore, the labor force industrial structure among the primary, secondary, and tertiary industries should be 12:31:57.

Under the direction of the government, South Korea has developed an export-oriented economy. While the industrial structure upgraded fast, per capita national income level also improved by a large margin, but its advantage of cheap labor was lost progressively. In 1995, the per capita national income of South Korea exceeded 10,000 dollar and the economic growth rate was 8.9%. Fast economic growth, higher income level, low rate of unemployment and the reduction of the workforce supply reducing led to the structure shortage of low quality, physical workforce, especially in the manufacture, service and 3 D trades. The income level of South Korea has relatively great disparity when compared with other developing countries in East Asia. Therefore, the disparity of income and the structure shortage drive the immigration of legal and illegal workforce to South Korea.

4. China

China has the largest amount of agricultural population in the world. In 1952, more than eighty percent of the employed population engaged in agriculture, the proportion of employed population in the secondary industry was only 7.4% and that of tertiary industry was 9%. During more than 20 years after this, the transformation process of China's labor force industrial structure was very slow. In 1975 the proportion of the employed population in the primary industry was still at 77.1%, namely the proportion had dropped by only 6.4 percentage points when compared with 23 years ago---1952, the proportion of the secondary and the tertiary industry had only risen by 5.9 and 0.5 percentage points, and the proportion of the tertiary industry was still less than 10% (see table 17). In the same period the transition process of the other countries in Northeast Asia improved much faster, among them Japan's proportion of the employed population in the primary industry dropped from 45.3% to 13.9%, namely dropped more than 31 percentage points¹⁹. Even in Mongolia the proportion of dropped more than of 20 percentage points during that period (dropped 15 percentage points from 1960 to 1965)²⁰.

In 1980, the proportion of the employed population among the primary, secondary and tertiary

¹⁹ Japan, Japanese Economic Statistic Yearbook, 1979, P92.

²⁰ World Development Report of 1984 and 1986, China Finance Economy Press, P259,239.

industries was still 69:18:13, even a bit lower than the structure levels of Mongolia in 1965 (55:20:25).

After the reform and opening up, the process of China labor force industrial structure transition has been accelerated. In 1998, the proportion of employed population in primary industry dropped to 49.8%, 19 percentage points lower than in 1980. The proportion of the secondary and the tertiary industries raised to 23.7% and 26.4% separately. The conversion speed of workforce's industrial structure had already exceeded most countries of Northeast Asia of the same period. The speed of transition is much faster than Korea in the same period (the primary industry proportion dropped 12 percentage points) and Mongolia of the eighties (the primary industry proportion dropped 6 percentage points from 1980 to 1990).

Table17. Change of Labor Force Industrial Structure of China (thousand, %)

Year	Employed Population	The Primary Industry	The Secondary Industry	The Tertiary Industry
1952	20 729	83.5	7.4	9.1
1965	28 670	81.5	8.3	10.2
1975	38 168	77.1	13.3	9.6
1980	42 361	68.7	18.3	13.0
1985	49 873	62.4	20.9	16.7
1990	56 740	60.0	21.4	18.6
1995	67 947	52.2	23.0	24.8
1998	69 957	49.8	23.5	26.7

Source: China Statistic Yearbook of 1995,1997,1999,P83,94,128.

In 1998, China's labor force industrial structure had already exceeded the level of South Korea in 1970 (48:14:37) and the level of Japan in 1950(48:22; 30). Especially, it took Japan with ten million people several decades to change the situation that seventy percent employed population engaged in farming into the level of above-mentioned structure; while China with 1,200 million people used a short period of about 10 years to realize this transition a short period of more than ten years.

The issues of the organization of China labor force industry display the following aspects: firstly, the agricultural proportion is too large; secondly, the tertiary industry develops insufficiently. Because the development of the tertiary industry has restrained the employment increasing and the labor force transition, the issue of rural laborers transition has become more serious. Especially in recent years, the issue of deflation and effective demand insufficiency have had direct relations with the unreasonable industrial structure.

5. Russia

After the war, although with a low starting point, the Russian labor force industrial structure changed very fast mainly relying on the secondary industry transition, and completed the modern transition at the beginning of the eighties. When World War II finished, Russian employment

structure was still mainly relying on agriculture. Although before the war, the former Soviet Union had achieved industrialization, until 1950, its proportion of agricultural population was still up to 56%, and the labor force industrial structure was quite backward. Ten years later, the proportion of the agricultural population dropped to 42%, then labor force industrial structure would not rely on agriculture. Russia just took 10 years to realize the transition that transferred from more than half employed population engaged in agriculture to more than half engaged in the secondary and the tertiary industries (the secondary industry accounted for thirty percent among them), the speed was quite high (see table 18).

Meanwhile, at that time the economic total level of the Soviet Union raised greatly too, the per capita national income increased from 339 dollars in 1950 to 752 dollars, twice as high as that of Japan in 1955(224 dollars)²¹. By the beginning of the eighties, Russian labor force industrial structure had further completed the modern transition. In 1980, the proportion of the agricultural employed population already dropped to 16%, the proportion of the secondary industry increased sharply to 44%, and formed the modern labor force industrial structure of 16:44:40. In 1994, the proportion of Russian agricultural employed population was 14.9%, while that of the secondary industry remained at the high level of 37.9%. The forming of this kind of labor force industrial structure resulted in the situation that regarding industry as center for a long time, agriculture relatively lagged behind and the tertiary industry and commodity economy were undeveloped.

Table 18. Change of Labor Force Industrial Structure of Russia (%)

Year	The Primary Industry	The Secondary Industry	The Tertiary Industry	Per Capita GNP
1950	56	44		339
1960	42	29	29	752
1970	26	74		1 327
1980	16	44	40	-
1990	14	42	44	3 220
1994	14.9	37.9	47.2	2 240

Note : the data before 1970 is of former Soviet Union, and the per capita GNP is Per capita national income. the data of 1950 and 1970 is agriculture population and nonagricultural population of Soviet Union is the data of 1995.

Source: World Development Report of 1984, 1993, 1997, China Finance Economy Press, P221,239; Foreign Economic Statistic Data (1949-1976), China Finance Economy Press, 1979, P15,43.

The outstanding characteristic of Russian labor force industrial structure is: (1) the structure changes fast, but the level is not high. The speed of forming non-agricultural industrial structure and completing the modern transition shows that by 1994, Russia's proportion of employed population in the primary industry (14.9%) was twice of Japan in the same period (7.2%), and the proportion of the tertiary industry (47. 2%) was 12 percentage points less than Japan in the same

²¹ Foreign Economic Statistic Data(1949-1976),China Finance Economy Press,1979,P43.

period (59. 2%)²². As regards to the total level of structure transition, it is similar to South Korea. (2) The proportion of the employed population in the secondary industry stay at a high level for a long time. After the eighties the proportion of the employed population in the secondary industry had once been up to more than 40% (reached 44% in 1980), namely nearly half the employed population was concentrated on the secondary industry. This phenomenon is rare in modern industrialized countries. (3) For a long time, labor force industrial structure lagged behind the simultaneous total level of economic development in the same period. In 1960, for example, the economic level of the Soviet Union was already relatively high (per capita national income had reached 752 dollars), but its proportion of employed population was 42%. When Japan reached to the same economic level (per capita national income was 785 dollars in 1965)²³, its proportion of employed population in the primary industry (24. 6%) was already lower than the level of Soviet Union in 1970 (26%). Therefore, the Russian labor force industrial structure was about 10 years behind total economic level.

The problems of Industrial structure in the former Soviet Union mainly lie in insufficient light industry development and large proportion of heavy industry, which has influenced the living standards of the people. After the Soviet Union disintegrated, Russia took the " shock treatments" to pursue the system of market economy. Then Russia fell into serious decline with the problems of economic structure more outstanding, production and management of national defense industry showed obvious difficulties because of lacking country strong support. So that the labor force with high quality are in unemployment or recessively unemployment. Meanwhile, with the wide land and abundant resources, Russian laborers in agriculture, mining and lumbering are of structural shortage. This kind of situation is more outstanding in the Far East Area.

Analysis on Labor Force Migration in Northeast Asia

One of the characteristics of international migration is that the country to which the people immigrate has the right to choose, and the immigration policy is mainly devised by this country. In the Northeast Asia, countries such as Japan, South Korea, and the Far East Area of Russia have shortage of labor force; China is the greatest labor resources reservation of this area, whose labor force is surplus.

Generally speaking, there are four kinds of ways to solve the labor shortage: First, the industry shifts, to export the domestic industry to the country with sufficient workforce and low costs. After the eighties, Japan's overseas shift industry accelerated, as did foreign direct investment, forming a hollow-centered industry, due to the domestic workforce insufficiency and the rising of labor cost. The second way is to increase labor participating rate, especially to increase participation rate of the woman and the elderly. On the one hand, because of the limitations of national cultural tradition, it takes a rather long-period time to realize this; on the other hand, because the work competition is

²² Japan, Japanese Economic Statistic Yearbook, 1996, P133.

²³ Foreign Economic Statistic Data (1949-1976), China Finance Economy Press, 1979, P43.

fierce and the operating pressure is great, the opportunity cost of working is high, which makes a lot of women and elderly people unwilling to work. The third method is to stimulate population growth. Population growth can increase workforce supply in the future, but is not helpful to solve the immediate shortage problem. Furthermore, in countries that have finished population transition, the policy of stimulating population growth is not an option to reach the anticipated result. The fourth way is to open labor market, and increase the supply of international immigrant workforce. The above-mentioned four kinds of methods can either be used individually, or used simultaneously.

1. Japan

1.1 illegal labor immigrant in Japan

Japan has maintained a very careful attitude towards absorbing foreign immigrants, adopting the policy of limiting non- technological immigration, and has stopped the channel to balance its labor market with foreign workforce, which leads to the more and more serious contradiction between workforce supply and demand. On the other hand, because the Japanese economic development level differs greatly from other Asian countries, the income gap has stimulated the flow of the workforces from low income countries to Japan greatly; therefore, the illegal immigrant problem in Japan has become more and more serious.

Table19. Illegal Immigrant Population in Japan 1981-1993 (person)

Year	Male	Female	Total
1981	208	1 226	1 434
1982	184	1 705	1 889
1983	200	2 139	2 339
1984	350	4 433	4 783
1985	687	4 942	5 629
1986	2 186	5 945	8 131
1987	4 289	7 089	11 307
1988	8 920	5 385	14 314
1989	11 791	4 817	16 608
1990	24 176	5 708	29 884
1991	25 350	7 558	32 908
1992	47 521	14 640	62 161
1993	45 144	19 197	64 341

Source: Foreign Migrant Workers in Japan: Trends and Policies, by Hiromasa Mori, Asian and Pacific Migration Journal VOL.4, No.2-3, 1995, P423.

Table 19 is the quantity of illegal immigrants during 1881-1993. It is no doubt that the number is just the surface of the enormous "iceberg", the true quantity must be much larger than that. According to an estimation from Japan Ministry of Foreign Affairs, there were about 500,000 illegal immigrants in 1993.

The illegal immigrants work under abominable working conditions, lacking of the basic social

security, and are often exploited by employers. When their rights and interests cannot get the protection of law, they will arouse various kinds of social problems.

1.2 Japanese Immigration Policy

After war, Japan adopted an immigration policy that was completely different from Western European countries. In order to safeguard the intact unity of culture, Japan has regarded the restriction of foreign immigrants as a basic principle all the time. After the 1980s, the voices pushing to open the labor market, especially from business circles, became stronger, so the immigration policy gradually became more flexible. The changes of the immigration policy are illustrated as following:

(1) To control the non-technological immigrant more strictly

According to the Immigration Control And Refugee Recognition Act, foreigners with certain qualities can engage in some fulltime jobs, including diplomats, civil servants, professors, artists, religious personage, reporters, investors or enterprise administrators, law or accounting workers, medical personnel, researchers, teachers, engineers, experts on mankind or international issues, property inheritors of domestic enterprises, and trainers. University students and preparatory school students can work in their free time (at most 4 hours each day) if permitted, but the non-technological workforce is restricted from entering Japan, and the employment is forbidden.

At the end of the 1980s, the issue of illegal immigrant was given extensive attention. In 1990, Japan implemented a new immigrant act that made it easier for technological immigrants to enter Japan, which increased the employment classification of the foreign technological workforce. The government required customs to strengthen the check of Asians when entering Japan, restricting the illegal immigrants. The new immigration act also increased the criminal punishment related to the illegal immigrants. For example, people who recommended or employed illegal immigrants would be sentenced to prison terms up to 3 years, and fined up to 2 million Japanese yen. New immigration act broadened short-term immigration policy in order to increase non- technological immigrant, including the immigration of Japanese descendants in North America and developing traditional training system. However, the new immigration act did not solve the problem of its domestic workforce's shortage, nor did it stop the illegal immigrants.

(2) To develop system of training foreign workforce

The system of training foreign workforce has a long history, including official and folk two kinds of methods. The official training system began in the fifties. In 1954, Japan joined the Colombo plan, in order to advance the social economy of Asia; Japan undertook relevant projects to train professional technician for other countries. Through the development for many years, and after being revised and changed several times, Japanese official training system operates soundly. In 1993, about 1/4 of the trainees entered Japan through an official or semi-official channel²⁴.

The folk training system developed with the Japanese abroad investment. In the 1950s, as Japanese investments abroad increased, they began to train the workers of the foreign enterprises

²⁴ Wang Shengjin, Trends of Japanese Labor Force Immigrant Policy and Illegal Immigrant Issues, Population Journal, No.6,1999

and branch departments especially in technology and management. With the purpose of meeting the needs of overseas enterprises development, the local workers, technical staff and administrative staff were sent to Japan and trained there, then went back to work in Japanese enterprises in those countries. The training did not last a long time and the scale was not large.

In the 1960s, a labor force structural shortage appeared in Japan, so the technological training developed gradually to satisfy the domestic demand for labor in specific trades. It is estimated that in the sixties, thousands of non- technological workers from South Korea, Chinese Taiwan, Indonesia, Thailand and Malaysia were trained in medical treatment in Japan and worked in Japanese hospitals. At the beginning the seventies, the labor force structural shortage outstood gradually, so the Japanese government began to increase the quantity of foreign workforce to be trained in order to raise the elasticity of the labor force supply. However, the policy was abandoned due to the oil crisis in 1973.

After the eighties, because of the increasingly stress of the labor shortage issue, Japan adopted the workforce short-term migration policy. The policy recruited overseas Japanese descendants to come back, with a 3 year time limit of their work. In 1993, about 150,000 overseas Japanese descendant had worked back in Japan, most of them coming from Brazil and Peru. In addition, Japan expanded its training system gradually to satisfy the domestic demand of workforce. In 1982, the Japanese "Immigrant Control Law" formulated the concept of "trainee", which refers to the persons who can work in Japan for some time as practicing, what they received for work was subsidy, but not salary; they do not belong to the protected range of Labor Law.

In 1991, the Ministry of Labor, Ministry of Justice, Ministry of Foreign Affairs and some enterprises established a cooperative association called the Japan International Training Cooperation Organization (JITCO). It took charge of offering an information advisory service for enterprises on recruiting trainees. In April of 1993, the Technical Intern Training Program (TITP) was established based on JITCO. This project requires that trainees must finish technical training and pass the assessing examination, and then they can become "technological foreign students". The most remarkable difference of TITP with other training systems lies in that "technological foreign students" have formal employment contracts with enterprises. They are considered as original staff of the enterprises and their rights and interests are protected by relative labor regulations.

At present, trainees enter Japan mainly through four channels: (1) government and international organizations; (2) cooperations among enterprises of different countries; (3) intermediary organizations; (4) and the Japan International Training Cooperation Organization (JITCO). In 1992, the number of trained people in Japan reached 43,600, and reached 39,700 in 1993. In June of 1994, there were 1492 "technological foreign students" in Japan²⁵. Japan's economic recession resulted in the reduction of trainees and an increase in technological foreign students.

Japanese domestic enterprises benefited from recruiting trainees, especially those small

²⁵ Foreign Migrant workers in Japan: Trends and Policies, Hiromasa Mori, Asian And Pacific Migration Journal VOL.4, No.2-3, 1995, P422.

enterprises, building enterprises, service trades and agriculture enterprises. Firstly, these enterprises have received their needed workforce. Secondly, because of the enormous income difference between Japan and other Asian developing countries, these trainees usually have higher educational level, and just lack professional techniques. After training, they can meet the demand of the enterprise better. Thirdly, the enterprises didn't treat trainees as formal staff, but paid them lower subsidy not salary, which could reduce labor costs of the enterprises.

Because Japanese descendants can work in Japan at most for 3 years and can be trained for no longer than 2 years, Japan has great flexibility in controlling immigrants. The influences on economy and labor market by short-term immigrant can be controlled and managed more easily. The flow of the foreign workforce is easy to grasp, and they can guarantee to go back home on time. In addition, the employers arrange board and lodging for the immigrants, ensuring their rights and interests in community life. The short-term workforce immigration policy has not only kept the "close" policy to non- technological immigrant, but also has reduced the negative effect of immigrants to the minimum level, alleviating the shortage of labor market with smaller cost.

However, the system increased the hopes of employers and foreign workers to hold up. The employers had carried on technical training to workers and were unwilling to train new workers. The freshmen had to take some time to adapt to the environment and to raise the productivity. Therefore, in Japan there are more and more illegal immigrants who exceeded the time limit, which is an important factor to solve the illegal immigrant issues.

1.3 Perspective on Japanese immigration policy

In the middle and later stage of the 1980s, after experiencing the prosperity of a "bubble economy", from 1991 Japan began to fall into a long period of stagnation, and the rate of unemployment began to rise. The depression of the Japanese economy made the illegal immigrant issue increasingly great, and Japan had to postpone opening the labor market further. However, since 1998, with the era of the knowledge economy with U.S.A. as the representative, the U.S.A. recaptured the advantage position again during the scientific and technological competition between America and Japan. When people describe the essential features of the knowledge economy era, they all regard talent as one key factor. The open immigration policy has been implemented for a long time in U.S.A. and has brought enormous advantages of absorbing the talents. For this reason, Japan began to examine its immigration policy, and open the immigration policy to advanced technicians further.

On the other hand, in order to solve the domestic workforce insufficiency in service, construction and 3D trades, Japan began to increase the quantity of recruited trainees, and recruit foreign workforce directly in agriculture and rearing trade, and relaxed the restriction on the non-technology immigrants progressively.

Krugman, the well-known American famous economist in the Massachusetts Institute of Technology considers that the reason for Japan's economic depression lies in the population aging, insufficient consumption and long-term deflation caused by the first two factors. In 1999, the economic growth rate began to increase and indicated that Japan might go out the long time of

economy depression. With the recovery of the Japanese economy, the demand for the foreign workforce will increase too. Considering that the present illegal immigrant problem has not been solved, the new illegal immigrant issue will force Japan to face reality, accelerate and make further open workforce immigration policy.

2. South Korea

2.1 Labor shortage and illegal immigrant

The situation of South Korea has many similarities with Japan. The foreign labor force are limited in several legal fields, and they often engage in news, exchange of technology, commerce, investment, education and research work through legal channels, for the "immigration law" does not allow non-technology workforce to enter South Korea.

The South Korean labor shortage results from fast economy growth beginning from the middle period of the eighties and the population transition. In addition, South Korean workers' repelling to some work is another reason. At the beginning the 1990s, the government had to open labor market because of serious workforce shortage in some field. From 1988 to 1992, the rate of unemployment of South Korea was 2.5%, 2.6%, 2.4%, 2.3% and 2.4% respectively. Although South Korea has a relatively low rate of unemployment, labor shortage is still very serious in some labor-intensive industries such as clothing, textiles, shoes manufacturing, construction, etc. (see table 13).

From the dynamic point of view, the South Korean domestic workforce is reducing in mining industry, craft manufacture, and 3 D trades. In 1991, the average entering rate of the male production labor force was 3.84%, but the quitting rate was 4.25%. This trend strengthened constantly from the late 1980s, and since 1991, the manufacture workforce began to reduce definitely.

The direct consequence of South Korea's limiting of the non- technological immigrant is the existence of a large amount of illegal immigrants. Most people (majority of visitors) who hold a short-term foreigner visa remained in Korea beyond their visa deadline, therefore becoming the illegal immigrants. The quantity of illegal immigrant by other ways to enter South Korea is larger. The total trend of South Korean illegal immigrant is increasing constantly. According to some statistics, in 1988 there were 255 illegal immigrants in South Korea, 450 in 1989 and reached 1018 people in 1990. This figure is just a very small part, it is estimated that there are actually about 100,000 illegal immigrants in South Korea. When the South Korean government implemented amnesty to illegal immigrant in 1992, there were 66126 illegal immigrants surrendering themselves to authorities including: 22,035 Chinese, 18,983 Filipino, 8,950 Bangladesh, and 5,036 Nepalese²⁶.

2.2 Adjustment of South Korean Immigration policy

During the course of changing from a workforce exporting country to a workforce importing country, South Korea also adopted a policy of strict limitations to the foreign workforce. However, without the import of foreign workforce, some economic departments of South Korea will face

²⁶ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG1994, P32.

problem of sustainable development. Illegal immigrants not only are difficult to control and manage but also cause many social problems. For this reason, after 1992, South Korea began to adjust the immigration policy in order to meet the workforce's demand in the course of economic readjustment.

From the aspect of the workforce supply, one of the most effective ways to alleviate labor force structure shortage is to increase the participation rate of women. However, such a change is difficult. In fact, since 1992, women's participation rate has been continually decreasing.

From the aspect of enterprise, facing the situation of salary level rising day by day, enterprises have several choices. Firstly, to import labor force; secondly, to raise the engineering level to reduce the labor cost, thirdly, to transfer overseas. For many small and medium-sized enterprises, on one hand the funds for technological transformation, research and development are insufficient, on the other hand, they have no ability or unsuitable ability for overseas transformation. Therefore, they just satisfy the workforce demand through importing labor force.

In 1990 and 1991, during the period of most serious workforce shortage, South Korea had no clear measure in treating the foreign workforce, which led to the fact that a large amount of illegal immigrant flew into South Korea. Until 1992, the South Korean government had begun to realize the severity of the problem. In January 1992, the government began to strengthen the entering management in port and airport and require the illegal immigrant to leave in a deadline. The Koreans of China entering South Korea from Jinsen were reduced from 29,000 people in September of 1992 to 17,000 people in January of 1993. In the same year, when the government implemented amnesty to illegal immigrants, the 66,126 illegal immigrants who surrendered to authorities were allowed to stay in South Korea till December 31, 1992. Later on, because of the serious workforce shortage in some industries, the government allowed them to stay for 6 months longer, and then the deadline of leaving was postponed until the end of 1993.

During the second half of 1993, South Korea began to adopt workforce-training system. About 10,000 foreign non- technological workforces in small and medium-sized enterprises accepted the technical training. At first, they are allowed to be held up in one year in South Korea, then at the end of 1993, these people are allowed to be staying in South Korea for 2 years, and workers who accepted technical training rose to 20,000 people.

In 1997, the Southeast Asia financial crisis hit South Korea heavily. Currency was devalued, enterprises and financial institutions went bankrupted, and production fell, which made the South Korean worker's actual income level reduced nearly by half. The rate of unemployment was up to 6.8% in 1998. The financial crisis made the foreign workforce in South Korea reduce rapidly, in December of 1997 legally employed foreign workforce was 15,900 people, reduced to 13,246 people till February of 1998, and reduced to 11,622 people in June of 1998. All the foreign workforces (including 3 parts: legally employed, to be trained, passport overdue to held up) reached 267,546 people in December of 1997, and then dropped to 194,057 people and 159,994 people respectively in February and June of 1998²⁷.

²⁷ The Crisis and Migration in Asia, Graziano Battistella and Maruja M.B. Asis, Scalabrini Migration Center, Quezon City,

3. Far East Area of Russia

3.1 The Labor and Service Cooperative History in the Far East Area

Since the middle period of the 1960s, foreign workers have been moving into the Far East Area of Russia, especially to agriculture, construction, forest felling and light industry trades. In 1967, the former Soviet Union and Korea reached agreements on jointly exploring forest resources; nearly 15,000 Korean workforce entered Verkhncbureinsky of Khabarovsk to fell the forest²⁸.

Because of the differences in regional production structure, output and products, the cooperative way has experienced several stages. The agreement was revised in 1975, 1977 and 1985. The initial agreement cooperation was set for 25 years, but until now, it is still in effect. In 1995, about 70,000 Korean workers were engaged in forestry production in Verkhncbureinsky of Khabarovsk²⁹. The compensation that Russia gave to the Korean workforce is mainly log and paper pulp.

Korean workers have solved the forestry workforce's insufficient problem of this area, however, and since the late 1980s, the economic, social, political issues produced by the service cooperation agreement between Russia (the former Soviet Union) and Korea have gained Russia's attention. In respite of interests, the cooperation also brought some negative influences, such as: exploitation of natural resources, and great loss of infrastructure and equipments.

The low quality of the Korean workers is the main reason for these issues. The deadline of the contract is three years, but Russia did not have enough time to train the Korean workers. Korean workers often damaged machinery and repaired them improperly or not in time, which caused an increase in production cost. In addition, in the small Khabarovsk area, Korea workers highly centralized, the conflicts between Korean and local residents often happened. The crime rate also increased, and the local people strongly objected to this service cooperation agreement.

3.2 Development of the Labor and Service Cooperation

In the sixties, Far East Area absorbed the foreign labor resource through the government signing of foreign labor service agreements for enterprises. The weak point of this form lies in that the government and enterprises lack communication and common understanding. After the 1980s, some new changes have taken place in the utilization of the foreign workforce in Far East Area. Firstly, the range to choose imported laborers expanded. Besides Korea, Russia began to import workers from Cuba, Vietnam and China. Secondly, the trade foreign workforce engaged in diversified. Besides forestry, the foreign workforce are allowed to enter construction, agriculture, light industry, etc. Thirdly, the cooperation mode has changed from government behavior to enterprise behavior, so that the enterprises in the Far East Area have established direct cooperative relations with foreign enterprises.

In 1981, the former Soviet Union signed a service cooperation agreement with Vietnam. The first Vietnamese workers came to this area in 1987, and were engaged in the textile industry.

Philippines,Jan.1999,P17.

²⁸ Wang Shengjin, Analyze of International Labor Service Cooperation Development in Far East Area of Russia, Population Journal ,No.6 2000.

²⁹ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG 1994,P32.

According to the agreement, the former Soviet Union supplied them with accommodations, clothes, and 6-months of language and technological training. The labor productivity of Vietnamese workers is obviously higher than that of the Russians. However, some new problems followed. The first problem lies in the products' quality. The income of Vietnamese workers was measured by the quantity of products not the quality. In order to gain higher income, Vietnamese workers often ignored product quality. The second problem lies in the fact that if the workers brought industrial products back to sell in Vietnam, the income is much higher than working in factories. As a result, many workers disobeyed discipline and transferred to do business, in the case of the consumer goods in shortage, the workers' consuming contradicted with local people. For above-mentioned reasons, the service cooperation between the former Soviet Union and Vietnam did not develop further.

The labor service collaborative project with the Cuban government in the Khabarovsk area in order to develop the timber failed equally. In 1987, the Soviet Union planned to import 1500 workers from Cuba ³⁰to develop timber resource and wooden goods production. From the beginning, the production efficiency of Cuban workers was so low that the output could only reach half of the plan, and the Cuban workers could not adapt the abominable weather. Only 2/3 of the Cuban laborers came to the Far East Area, whose technological level was far behind the need of practical work. As a result, the service cooperation of Russia and Cuba had to stop.

After implementing policies of reform and opening in 1978, China made great efforts to expand labor service cooperation field, and actively promoted workforce exportation. As a result, Sino-Russia service cooperation developed constantly. In contrast to Vietnam and Cuba, from the beginning China adopted the cooperation modes between enterprises to cooperate with Far East Area of Russia. According to the relevant agreements between the two governments in 1992, the enterprises of the Far East Area can sign contracts to export foreign laborers for its need. Thus, the international service cooperation mode centered with enterprises has come into being.

According to agreements between the governments of China and Russia, the service contracts are signed by enterprises of Russia and China labor service companies. Most Russian enterprises pay salary or Chinese laborers to China labor service companies by means of compensation of fish, timbers, coals, metals, etc. In Russia Chinese workers could get few subsidy supporting the family, and the remaining salary should be got after coming back to China. The service cooperation mode not only reduced workers' initiatives to a certain extent, but also influenced on workers' stability. Some workers changed to engage in border trade for realistic and considerable income.

In three provinces of the Far East Area - - Khabarovsk, Armour state and Maritime Province in 1989, there were 26186 foreign workers, 82% of them engaged in forest felling and timber processing work. In 1992, in the most attractive area - Khabarovsk, Korean workers engaged in timber processing industry counted for 91.4%. At the beginning of 1993, there were 7091 foreign laborers in Maritime Province, among them Chinese accounted for 84.7%. Also at the beginning of 1993, in Armour there were 8493 foreign workers, because more Korean engaged in timber

³⁰ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG.1994,P28.

industry and the agriculture of this state was developed better than other states in the Far East Area, Chinese accounted for only 8.3% and mainly engaged in construction industry³¹. According to the statistics of Chinese Ministry of Labor, in 1993, there were about 30,000 Chinese workers working in the Far East Area and 16,000 people coming from Heilongjiang Province.³²

4. China

Since the reform and opening up to the outside world, China government are making great efforts to expand foreign service cooperation field, and actively promoting Chinese workforce exporting. In 1995, the government made " Chinese Citizen Entry and Exit Management Rule", began to loose the restriction of Chinese workers employed in foreign corporations, allowed the foreign enterprises to recruit workers directly from China. Furthermore, the range of employing foreign technical and administrative staff was broadened in order to absorbing more advanced technology, and learn their advanced management experiences. China can win foreign currency through labor service exporting, workers can receive technical training and working experiences, and domestic employment pressure can be alleviated to some extent, all the above are favorable to China's economic development.

From 1983 to 1993, about 400,000 workers went working abroad through labor service contracts or project contracts mainly engaged in construction. In order to promote workforces exporting, Chinese government widened the channel of workforce exporting, strengthened managing, raised workforce's quality, strengthened the network construction of technical training and made the relevant laws and regulations. Chinese government thought abnormal workforce immigration could damage the international relations, so, the government enhanced the strength in attacking the illegal immigrant.

The non- technological immigrant mainly comes from Russia and Korea. Most of the Russian immigrants are young women. They work in restaurant, hotel and other public places of entertainment. Because some of them are found to offer illegal pornographic service, both Russia and China are making great efforts to take measures to prevent them from entering China, and strengthen the management to them.

In recent years, because of food crisis in Korea, a large amount of Korean refugees entered China. Some of them were sent back home, some stayed in Chinese Korean communities illegally and the rest went to South Korea passing by China. It is estimated that at least 100,000 Korean refugees entered China in recent years. China has strengthened the management in border area, but because of the small geographical obstacles easily to cross over, many Chinese Korean settlements in border area, the problem of illegal immigration is difficult to solve.

³¹ Managing Labor Migration In Northeast Asian, Won Bae Kim, Northeast Asian Economic Forum, AUG.1994,P29.

³² China's Export of Labor and Its Management, Wang Shengjin, Asian And Pacific Migration Journal VOL.4,No.2-3,1995,P433.

. Analyze on the International Cooperation of Labor Force Resource in Northeast Asia

1. Regional Economic Cooperation and Labor Force Resource Cooperation in Northeast Asia

1.1 Regional Cooperation

After the cold war, international political relationship changed from confront towards cooperation. With the main theme of peace and development, the world developed towards multipolar direction. The international political relations among various regions and states are improved obviously in Northeast Asia. The relations among countries changed from hostile and conflict to the state of political contact and economic cooperation. The subsiding of ideological conflict, the difference of economy and population, the demand for the international environment because of the socialist countries' structural adjustment and economic reform have driven the rapid development of regional economic cooperation in Northeast Asia.

Since the later stage the 1980s, because of the transition from planned economy to market economy or mixed economy in China, Russia, Mongolia and Korea, the economic exchanges and cooperation in Northeast Asia increased constantly. Besides, in order to overcome the domestic contradictory caused by economic reform and to create good outside environment, China, Mongolia and Russia are eager to form a new stable political and economic relations with other countries.

Although the cooperation in Northeast Asia has developed fast, this area started economic cooperation relatively late, and there are many factors to restrict the further development.

Firstly, the influence of geopolitics. At present, this area is one of contradiction concentrated areas in the world. Although the cold war finished, the issues left still influence international relations, shade of the Cold War mentality are still existing in this area. There are not only differences of system but also the issues of sovereign right on territory and territorial seas, national reunification, military alliance between America and Japan and TMD, etc.

Secondly, lacking of multilateral coordination system for regional cooperation. Although many countries have realized the importance of the economic cooperation, while the attitude and participation degree toward regional economic cooperation of Northeast Asia are inconsistent. The cooperation in this area has not been brought into the national economic development strategy; the subject of the regional economic cooperation is not state government, but local government, non-government organization and enterprises. While the subject to pursue regional economic cooperation is mainly economy backward areas. So considering the issue from the multilateral coordination system and overall idea for regional cooperation, what we mentioned above has limited the regional cooperative development.

Thirdly, the level of Economic cooperation is relatively low, which shows as following: on one hand, enormous differences of economic development level among various regions and states in Northeast Asia caused the majority of economic cooperation mode is vertical labor division among countries, which can not form international equal competition and mutual beneficial cooperation. On the other hand, the economic cooperation still remains on the level of development of natural resources.

Even so, in the 21st century, the following situation will offer new opportunities for

developing wider cooperation in this area, that is: relaxation of Korean peninsula situation, improvement of relationship between Japan and Russia, China increasing the input to develop this Tumen river area in its "the tenth-five-year plan", and the urgent hope of Russia to develop the nature resources of the Far East Area.

In the next century, the center of world economy turns to the Pacific Ocean area. As an important part of the Asian-Pacific area, with the economy being developed fast, Northeast Asia must increase the connection among various countries. Especially, under the push of the trans-corporation and scientific and technological revolution, the economic globalization and the trend of regional economy grouping will be developed further. The problems that Northeast Asia must to think for economic globalization lie in that to strengthen economic cooperation, set up regional economy group, promote the regional economic integration. So, with the trend of global development, China joining WTO and Korea peninsula relation improvement, the regional cooperation must be multi-level and pluralism. The cooperation will include producing, technology, labor service, finance, environmental protection, etc.

1.2 Cooperation of Labor Force Recourse

The complementarity and the diversity of various regions and states of Northeast Asia are the material base to develop economy rapidly. The economic complementarity mainly includes economic development level difference, resource distribution difference and workforce resource difference. Economic development level difference shows as different country at different developing stages, forming three gradients (see table 20). Resource distribution difference is that economy developed Japan and South Korea have poor resources, while China and Far East Area of Russia have abundant resource but economy lag behind. And the labor force resource difference lie in that China have surplus workforce, Japan, South Korea and Far East Area of Russia have the structural shortage of workforce in various degree.

In respect of relations between workforce resource difference and economic difference, workforce is the essential key element to promote the economic improvement. Furthermore, with the arrival of knowledge economy, people pay more attention to workforce quality, as the knowledge carrier and resource of knowledge innovation, human resource is regarded as the primary motive force of economic development. In Northeast Asian area, not only economic difference promote the development of trade, investment and industrial cooperation, but also the enormous income difference drive the workforce transnational transition, especially flow to Japan and South Korea.

From the aspect of the resource distribution difference and workforce resource difference, because the Far East Area of Russia has the most abundant resource, serious population shortage restrict the development and utilization of natural resources. With the progress of development of natural resources in Far East Area, workforce transnational transition must be driven. Therefore, the development and cooperation of workforce is an important cooperative field to turn potential advantages to realistic economic powers.

Table 20. Per Capita GDP in Various Countries of Northeast Asia (dollar)

Country	1980	1985	1990	1995
Korea	1 512	2 311	5 917	10 121
Japan	10 107	13 202	25 885	37 508
China	307	291	336	573
Russia			4 101	
Mongolia	1 403	1 344	896	418

Source: Statistical Indicators for Asia and The Pacific, VOL XXVII, No.4, Dec.1997, United Nations, P3.

2. Basic Modes of Workforce Resource Cooperation

As we have talked before, since the 1990s, the quantity of workforce increased slowly, supply of low cost workforce was insufficient in Japan, South Korea and the Far East Area, labor force were in serious shortage in family and community service, 3 D trades. In order to safeguard its traditional culture, Japan restricted the low qualified laborers and caused a large amount of illegal immigrant. Russia took prudent attitude at absorbing foreign laborers for fear of causing new national problem in the Far East Area. Because of the economic influence, South Korea also took the careful attitude in order to prevent social problems caused by too many foreign workers. In 1997, the financial crisis broke out in South Korea, the economic recession, rising of unemployment rate, bankrupt of a large amount of enterprises and financial institutions made South Korea slow down the opening paces of the labor market.

After the 1990s, Japan became inferior in the competition with U.S.A. in Hi-Tech field just because Japan was inferior in the field of high-tech talents. In order to promote the high-tech development, Japan is adjusting policies to attracting the high-tech talent immigration. It is estimated that South Korea will take the similar adjustment too.

Because of above-mentioned worries, Japan, South Korea and Russia adopted different cooperative modes in the cooperating course, especially in the field of development of low qualified labors. The cooperative modes includes:

1. Short-term service cooperation. According to the request of the enterprises especially small and medium-sized enterprises, Japan, South Korea and Russia recruit foreign labor service from other countries. Most of them engaged in small and medium-sized enterprises, agricultures, service trades and 3 D trades, the deadline of contract was between 1 year to 3 years, and they would go back home after the service period.

2. The service project cooperation. The service projects are usually large-scale construction project and development of resources. Meanwhile the absorbing of fund and technology, plenty of labor service personnel can be imported.

3. Foreign students system. The merits of this system lie in that on one hand the enterprises can obtain relatively high qualified workforce, on the other hand the foreign workforce's rights and interests can be ensured. At present, both Japan and South Korea have adopted this kind of system. JITCO absorb 100,000 workforces from developing countries every year and train them with construction and machinery technology. Some of them are allowed to stay and work for one year in

Japan. In South Korea, the training is organized by the small and medium-sized enterprises federation to meet the enterprises' demand of foreign workforce. With two respects of development and cooperation of workforce resources, this system has great flexibility and strong potentiality to develop.

4. The illegal immigrant will exist for a long time. Japan, South Korea and Russia incline to take "close" immigration policy. Japan and South Korea tacitly consent to the existence of the illegal immigrant to a certain extent and hope to pay the smaller cost to support domestic economic development, so the question of illegal workforce immigrant will exist for a long time. In fact, this is a kind of irresponsible attitude, not only damage the laborer's rights and interests but also destroy the relationship among countries.

While in the course of the regional cooperation of workforce resources development in Northeast Asia, lots of questions are worth pondering deeply by all the countries. The primary is the problem of a large amount of illegal immigrant. The illegal immigrants work and live in very arduous situation, with low salaries, often maltreated by employers and cannot get effective treatment when ill or injured. All the countries should make great efforts to set up legal international workforce migration channel, stop up various kinds of illegal immigrants, prevent exploitation by employers and illegal immigrant organizer, and ensure the workforce's lawful rights and interests. So, we should strengthen the multilateral or bilateral cooperation to strengthen the immigrant management of the workforce.

1. Establish the special research institution of regional labor force resources. This organization can be formed by experts from various countries (areas), engaged in study of labor force resource and other resources. They may predict the quantity of workforce in these countries (the areas). While making plans of labor service migration, they can study in the field of developing the foreign labor force system, workforce distributing in industries and areas, economic development, etc. This is the prerequisite of formulating the labor policy and industrial policy.

2. Set up workforce's training center. Both the exporting and importing countries should strengthen the training of technology and language, in order to meet the request of labor market on worker's technology and educational level.

3. Establish the international service cooperation center together by the governments and enterprises to exchange information of labor force demand, increase the transparency of international service cooperation, reduce the harm to immigrant's rights and interests and lower the middle cost. So the regional international service cooperation of Northeast Asia can develop in a just, fair and open direction.

4. Set up controlling network of labor force migration in order to know about the quantity, characteristic, work types, contract terms, immigrant ways, etc.