# A Discussion about Solutions to the Employment Problem of China

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**Abstract**

Employment is one of the bread-and –butter issues requiring urgent attention and careful handling. With the accelerating of the urbanization, a large number of surplus labors have appeared in rural areas of China. At the same time, in the course of the deepening reform of state-owned enterprises, there are more and more laid-off workers, so the problem of unemployment sticks out. In this paper, the authors first analyze the industrial and the employment structures of China, and then propose a facile solution to the problem of employment.

**Keywords:** Employment, Industrial Structure, Employment Structure, The tertiary industry

## 1. Introduction

Since the 1990s, with the deepening of the reform of state-owned enterprises, the unemployment has grown substantially in cities and towns. According to the State Statistical Bureau of China, in 2005, the urban registered unemployment rate rose from 2.3 percent in 1991 to 4.2 percent, the urban registered unemployed grew from 3.522 billion in 1991 to 8.39 billion (see Figure 1). And at the same time, with the development of production and the improvement of productivity, more surplus laborers appear in rural areas. According to the research of Wu (2005), there are about 490 million laborers in rural areas, of which 180 million had moved to non-agricultural industries, 310 million labors remain in the agricultural industry. But it is usually believed that, 180 million laborers are enough to work in the agricultural industry, so, there are still 130 million surplus laborers in rural areas. Because of the pressures of the transfer of rural work force, the re-employment of laid-off workers in urban areas and the new growing employees, it is unprecedentedly difficult to tackle the problem of employment. Because of the rigidity of the supply of the labor force, the key to resolving the problem of employment lies in expanding the demand for work force. Li (2005) maintains that, the factors affecting the elasticity of employment are complicated. In addition to the laws governing economic development, the government's economic policy and the industrial structure are also factors affecting the elasticity of employment. In this paper, the authors first analyze the industrial and employment structures of China, then work out specific measures to solve the problem of employment.

## 2. The analysis of industrial and employment structures of China

British economist William Petty (1691) finds out that the profit of manufacturing industry is far more than that of agriculture, and the profit of commercial industry is far more than that of manufacturing industry. With the economic development, the labor force will move to manufacturing industry from agriculture gradually, and then move to commercial industry from manufacturing industry. The industrial and employment of China will be analyzed below.

### *2.1 The industrial structure of China*

The industrial structure of China has been steadily optimized over the past years since the reform and opening up policy in 1978. Related data is presented in Figure 2. The proportion of the primary industry in GDP dropped from 27.9% in 1978 to 11.7% in 2006, a decrease of 16.2 percentage points; that of the secondary industry grew up by 15.2 percentage points between 1978 and 2006, with an average annual growth of 0.54 percent; that of the tertiary industry had a increase of 15.2 percentage points, and which peaked at 41.5% in 2002. But, as compared with the world, the industrial structure of China needs a further optimization. Table 1 shows the difference of the industrial structures between China and other countries in the world. The proportion of the primary industry in the GDP of China was 12.6 percent in 2005, which was higher 9.1 percent than the world's average level, higher 11 percent than

that of the developed countries, higher 0.9 percent than that of the developing countries. So, it is clear that the percentage of the primary industry in GDP of China is rather high. In striking contrast to the primary industry's proportion far higher than the world, that of the tertiary industry is far lower than that of the world. In 2005, the tertiary industry accounted for 38.2% of the GDP in China, with 30.3 percentage points lower than that of the world's average in 2003, with 12.4 percentage points lower than the developing countries' average in 2003, and with 32.3 percentage points lower than the developed countries' average. By contrast with the world, it is evident that the tertiary industry of China is urgent to be improved.

*2.2 The employment structure of China*

Along with the readjustment of the industrial structure, the employment structure of China has also been optimized gradually as shown in Figure 3. In 2006, employees in the primary, secondary, tertiary industries accounted for 42.6 percent, 25.2 percent and 32.2 percent, respectively. Compared with 1978, the employment proportion of the primary industry dropped by 27.9 percentage points, that of the secondary industry rose by 7.9 percentage points, and that of the tertiary industry rose by 13 percentage points. Compared with the world, the employment proportion of the primary industry is still rather high, on the contrary, that of the tertiary industry is too low (see Table 2).

Table 2 shows that in 2005 the employment percentage of the primary of China was 44.8%, which was 40 percentage points higher than the average of the developed countries listed in the table, 7.8 percentage points higher than that of Philippines, 44.5 percentage points higher than that of Singapore, even 23.8 percentage points higher than that of Brazil in the same period. It is evident that the employment structure of China still should be improved.

*2.3 The comparison of employment elasticity of the three industries*

Employment elasticity refers to the corresponding growth rate of employment when the economy increases one percentage point. Here, we calculate the employment elasticity of the primary, secondary, and tertiary industries with the formula of (i), (ii), and (iii) respectively as below

$$E_1=GY_1/GL_1 \quad \text{(i)}$$

$$E_2=GY_2/GL_2 \quad \text{(ii)}$$

$$E_3=GY_3/GL_3 \quad \text{(iii)}$$

Where $E_1$, $E_2$, and $E_3$ represent the coefficient of the employment elasticity of the primary, secondary, and tertiary industry respectively; $GY_1$, $GY_2$, and $GY_3$ represent the economic growth rate of the three industries respectively; $GL_1$, $GL_2$, and $GL_3$ represent the growth rate of the employment of the three industries respectively. The calculation results of the related data are shown in Table 3. We can see that the average employment elasticity duringthe period 1991-2006 was 0.112, and that of the primary, secondary and tertiary industry were -0.169, 0.192 and 0.525, respectively. Since 2003, the coefficient of the employment elasticity of the primary industry had been negative and kept going down, which indicates that with the economic growth the primary industry's contributions to employment had been decreasing, and more and more work force in the primary industry should be transferred to the other two industries. The employment elasticity of the tertiary industry is the highest in the three industries, which is 3.7 times of that of the secondary industry. So, it is clear that the tertiary industry has greater potentials to absorb labor than the other two industries. As the economic development of the secondary industry relying more on the technological progress, the employment of the secondary industry will decline slowly; at the same time, the employment space has long been saturated, therefore, it is necessary for China to develop the tertiary industry vigorously to solve the problem of employment.

## 3. Ways to Solve the Problem of Employment of the Surplus Labor Force

Because there are lots of laid-off workers in the cities, it is unrealistic for the surplus labor force in rural areas to be transferred to the city areas completely all at once. It should be proceed on two aspects to solve the employment problem of China better. Firstly, to develop tertiary industry especially the new service industries in cities so as to increase more employment opportunities; Secondly, to develop rural economy and adjust the industrial structure of rural areas to absorb more surplus labor.

*3.1Rreducing the cost of institution and developing the tertiary industry vigorously in urban areas*

It is well known that, in a country's output structure, the greater the proportion of labor-intensive products, the higher the employment elasticity; on the contrary, the greater the proportion of the capital- and technology- intensive products, the less the employment opportunities. Compared to the secondary industry, the tertiary industry has a higher capacity to absorb labors. It is benefit to raise the employment elasticity to develop the tertiary industry for China.

The raise of the income stimulates peoples' demand for service. And with the expanding of the market of 'service'

products, it becomes inevitable for labor force to enter the tertiary industry. At the same time, the low entry barriers of capital and technology of the tertiary industry makes it possible for the large number of laborers to work in this industry. Analysis on employment elasticity presents that the tertiary industry is the largest industry to absorb labor force. The experience of many countries in the world also shows that the tertiary industry is the strongest field to absorb labors. Therefore, it is urgent for China to develop the tertiary industry to alleviate the contradictions caused by the difficulties of employment.

In the internal structure of China's tertiary industry, the proportion of modern service industries such as financing, insurance, and the information industries is still low, which lags far behind that of the developed countries. To develop the modern services, it is required to establish a reliable legal protection of the rights and interests of investors, to set up the corresponding judicial system and legal proceedings, to found the contractual rights protection system to reduce transaction costs. As the transactions of the tertiary industry are products as 'services' or 'promises', which are impalpable or intangible, the probability of risk of moral hazard or adverse selection of the tertiary industry is much higher than that of other industries. So, if the capital of institution does not to be enhanced, the service industry will stagnate or even shut down in China (Chen, 2004), which makes it an urgent request to reform the corresponding system of China.

*3.2 Developing the rural enterprises further*

Since the reform and opening up of China, the development of the rural enterprises has been alleviating the pressure of employment in rural areas, and has been making important contributions to the increase of farmers' income. Figure 4 shows that since 1978, although with some ups and downs, the number of rural labor force absorbed by the rural enterprises has been rising. In 1978, the proportion of the employees in the rural enterprises to the total rural employed persons was 9.23 percentage points, the proportion rose to 30.53 percentage points in 2006. The number of employees worked in rural enterprises rose from 28.23 million in 1978 to 146.80 million in 2006, an increase of 118.57 million in 28 years. Currently, rural enterprises are still main channels to solve the problem of the rural surplus labor force (Qu & Zhang, 2007). In future, it is important to speed up the reform of the rural enterprises. Only in this way can the rural enterprises play to the full their roles of driving the economic growth and absorbing labors.

Though China's rural enterprises have been flourishing over the past years, their overall level of development is still backward: such as their scales of are always small; their management system remains to be perfected; their layout is irrational (Guo, 2007); the environmental pollutions they bring are serious (Liu, 2001); the costs of their products are high; the equipment, capital, raw materials and energy are still severe short form them, and so on.

To improve competitiveness, rural enterprises should actively bring in specialized technical talents and advanced management experience, focus on human resources' development and management to improve the capability of technological innovation and technological development. The government should create a relaxed policy environment and offer facilities for the development of the rural enterprises. The government should keep guiding the rural enterprises to develop in a healthy way, and alleviating environmental pollution through reinforcing environmental management. In view of the uneven development of the rural enterprises in different regions of China, it is suggested that the rural enterprises in the less-developed areas first develop some labor-intensive industries; and those in developed regions quick their pace of upgrading their industries and energetically develop capital-and technology-intensive industries. At the same time, scattered rural enterprises should be joined together to form industrial districts to promote the development of the tertiary industry.

*3.3 Improving farmers' general quality and optimizing the agricultural structure*

In order to optimize the structure of agriculture, it is important for the government to guide farmers to develop agricultural projects of high quality, high efficiency and high-yield; to guide farmers to expand the industrial management of agriculture, to better organize farmers' access to the market and raise the overall efficiency of agriculture. Farmers should develop the deep processing of agricultural products, extend the processing industry chain of the competitive agricultural products, gradually integrate the production, processing and marketing of agricultural products so as to enhance the added value of agricultural products.

At present, the average educational level of the rural labor force of China is still very low, above 80 percent of them are only with junior middle school or even lower education. Coupled with a lower lever of skills, farmers can not meet the needs the request of agricultural modernization and industrialization. This requires the government to develop education in rural areas and improve farmers' overall quality of the culture, to offer professional skills training to farmers to make them know how to use technology and market information to increase agricultural efficiency and effectiveness. Only in this way can farmers become new farmers who understand technology and know business and management.

*3.4 Accelerating the development of tertiary industry in rural area*

At present, the economic structure in most rural areas is single. The agriculture system is mainly made up of farming and animal husbandry, the development of secondary and tertiary industries is very slow. According to the National Bureau of Statistics of China, in 2007, the rural employed persons numbered 47.852 million, of which, people employed in the primary industry, the secondary industry and the tertiary industry accounted for 70.8, 15.6, and 13.6 percentage points respectively. In the western rural areas of China, the proportion of the people employed in the tertiary industry to the total rural employed persons was only 8.5 percent in 2007. Yet early in 1980, the rural labors engaged in the tertiary industry accounted for 42% of the total rural employed persons, 18 percentage points higher than that engaged in agriculture (Wang, 2005). In view of the tertiary industry's strong ability to absorb labor, the tertiary industry must be gradually developed in rural areas of China.

The development of the tertiary industry in the rural areas can be carried out through the following aspects: Firstly, in the western regions, traditional services as transport, hotels and catering, wholesale and retail trade, repair service, and so on can be given priority to be developed; Secondly, in the more developed eastern regions, industries as science and technology education, information and consultant services and so on should be expanded vigorously, so as to provide the following services for farmers: production technology, adequate market information of production and circulation of agricultural products, the guidance and services on investment decision-making , and so on; Thirdly, with the prosperity of rural economy, knowledge-intensive services as posts and telecommunications, financing, insurance, commodity circulation, culture and sports will be encouraged to develop.

## 4. Concluding Remarks

The existence of the mass surplus labors in rural areas and the large laid-off and unemployed personnel in cities makes the employment problem of China become increasingly prominent. To settle the difficulties of employment, the following aspects should be given enough consideration: the first one is to spread the development of the tertiary industry in urban areas, for the employment elasticity of the tertiary industry is the highest in the three industries; the second one is to adjust the rural industrial structure and to promote the development of the secondary and tertiary industries in rural areas, so as to improve the quality and level of rural economic development and offer more job opportunities for rural surplus labors.

To accelerate the development of the modern service sector, the government should attach importance to the building of institutional environment, because in the tertiary industry, the asymmetry of information possessed by the both sides of transaction is much higher than that in the primary and secondary industries. On the one hand, it is necessary to enhance the protection of consumers' rights and interests; on the other hand, it is important to ensure the disclosure of information of both sides of trade adequately and reliably. Only in this way can the tertiary industry develop soundly.

To settle the employment problem better, China should work hard to develop job training with a view to enhancing workers' job skills and quality and improving their capabilities of finding employment and adapting to job changes. Solving the employment issue is a long and arduous process, the Government and individuals need to make more efforts.

**Note:** The national data of China in this paper do not include that of Hong Kong Special Administrative Region, Macao Special Administrative Region and TaiwanProvince.

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Table 1. A Comparison of Indicators of Composition of GDP among China and other Countries

| Country or Area | The Primary Industry (%) | The Secondary Industry (%) | The Tertiary Industry (%) |
|---|---|---|---|
| World(2003) | 3.5 | 28.0 | 68.5 |
| Developed Countries(2003) | 1.6 | 26.2 | 72.2 |
| Developing Countries(2004) | 11.7 | 36 | 52.3 |
| China(2005) | 12.6 | 47.5 | 39.9 |
| United States(2003) | 1.2 | 22.3 | 76.5 |
| Japan(2003) | 1.3 | 30.5 | 68.2 |
| Canada(2001) | 2.2 | 32.4 | 65.4 |
| Germany(2004) | 1.1 | 29.1 | 69.8 |
| United Kingdom(2004) | 1.0 | 26.3 | 72.7 |
| France(2004) | 2.5 | 21.7 | 75.5 |
| Singapore(2005) | 0.1 | 33.8 | 66.1 |
| Korea, Rep.(2004) | 3.7 | 40.8 | 55.5 |
| India(2005) | 18.6 | 27.6 | 53.8 |
| Brazil(2005) | 9.8 | 37.9 | 52.3 |
| Russian Federation(2005) | 5.6 | 38.0 | 56.4 |

Source: National Bureau of Statistics of China, http://www.stats.gov.cn

Table 2. A Comparison of Indicators of Employment Structure among China and other countries

| Country | Year | Employment Structure(%) | | |
|---|---|---|---|---|
| | | The primary industry (%) | The secondary industry (%) | The tertiary industry (%) |
| United States | 2005 | 1.5 | 20.7 | 77.8 |
| Japan | 2005 | 3.3 | 30 | 67.7 |
| United Kingdom | 2005 | 1.4 | 22 | 76.6 |
| France | 2005 | 3.8 | 24.4 | 71.8 |
| Canada | 2005 | 2.7 | 22 | 75.3 |
| Philippines | 2005 | 37 | 14.9 | 48.1 |
| Singapore | 2004 | 0.3 | 23.3 | 76.4 |
| Korea, Rep. | 2005 | 7.9 | 26.9 | 65.2 |
| Brazil | 2004 | 21 | 21 | 58 |
| China | 2005 | 44.8 | 23.8 | 31.4 |

Note: The data is worked out based on related data in *Year Book of Labor Statistics-2005*. Compiled by International Labor Organization.

Table 3.The Employment Elasticity of the Three Industries of China 1991-2006

| Year | GY (%) | GL (%) | E | GY1 (%) | GL1 (%) | E1 | GY2 (%) | GL2 (%) | E2 | GY3 (%) | GL3 (%) | E3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1991 | 9.2 | 1.15 | 0.125 | 2.4 | 0.47 | 0.196 | 13.9 | 1.15 | 0.083 | 8.8 | 3.33 | 0.378 |
| 1992 | 14.2 | 1.00 | 0.070 | 4.7 | -1.02 | -0.217 | 21.2 | 2.43 | 0.115 | 12.4 | 5.82 | 0.469 |
| 1993 | 13.5 | 0.99 | 0.073 | 4.7 | -2.63 | -0.560 | 19.9 | 4.25 | 0.214 | 10.7 | 8.13 | 0.760 |
| 1994 | 12.6 | 0.97 | 0.077 | 4.0 | -2.79 | -0.698 | 18.4 | 2.32 | 0.126 | 9.6 | 9.55 | 0.995 |
| 1995 | 10.5 | 0.90 | 0.086 | 5.0 | -3.0 | -0.600 | 13.9 | 2.24 | 0.161 | 8.4 | 8.80 | 1.048 |
| 1996 | 9.6 | 1.30 | 0.135 | 5.1 | -2.0 | -0.392 | 12.1 | 3.50 | 0.289 | 7.9 | 6.20 | 0.785 |
| 1997 | 8.8 | 1.26 | 0.143 | 3.5 | 0.06 | 0.017 | 10.5 | 2.12 | 0.202 | 9.1 | 2.82 | 0.310 |
| 1998 | 7.8 | 1.17 | 0.150 | 3.5 | 0.97 | 0.277 | 8.9 | 0.32 | 0.036 | 8.3 | 2.32 | 0.280 |
| 1999 | 7.1 | 1.07 | 0.151 | 2.8 | 1.68 | 0.600 | 8.1 | -1.08 | -0.133 | 7.5 | 1.83 | 0.244 |
| 2000 | 8.0 | 0.97 | 0.121 | 2.4 | 0.77 | 0.321 | 9.6 | -1.23 | -0.128 | 7.4 | 3.22 | 0.435 |
| 2001 | 7.3 | 1.30 | 0.178 | 2.8 | 1.30 | 0.464 | 8.7 | 0.40 | 0.046 | 7.8 | 2.04 | 0.262 |
| 2002 | 8.0 | 0.98 | 0.122 | 2.9 | 0.98 | 0.338 | 9.9 | -3.10 | 0.313 | 7.3 | 4.26 | 0.584 |
| 2003 | 9.1 | 0.94 | 0.103 | 2.5 | -0.88 | -0.352 | 12.5 | 1.88 | 0.150 | 6.7 | 3.41 | 0.509 |
| 2004 | 9.5 | 1.03 | 0.108 | 6.3 | -3.49 | -0.554 | 11.1 | 5.24 | 0.472 | 8.3 | 5.51 | 0.664 |
| 2005 | 9.9 | 0.83 | 0.084 | 5.2 | -3.68 | -0.708 | 11.4 | 6.88 | 0.604 | 9.6 | 3.30 | 0.344 |
| 2006 | 10.7 | 0.76 | 0.071 | 5.0 | -4.19 | -0.838 | 12.5 | 6.46 | 0.517 | 10.3 | 3.49 | 0.339 |
| Average | | | 0.112 | | | -0.169 | | | 0.192 | | | 0.525 |

Note: GY indicates China's total economic growth rate, GL indicates China's total labor force growth rate, E indicates China's total employment elasticity; the data of GDP is calculated based on 1980 constant price.

Source: China Statistical Yearbook-2006; China Labor Statistical Yearbook-2006; Statistics communiqué of national economic and social development of People's Republic of China during 2006.

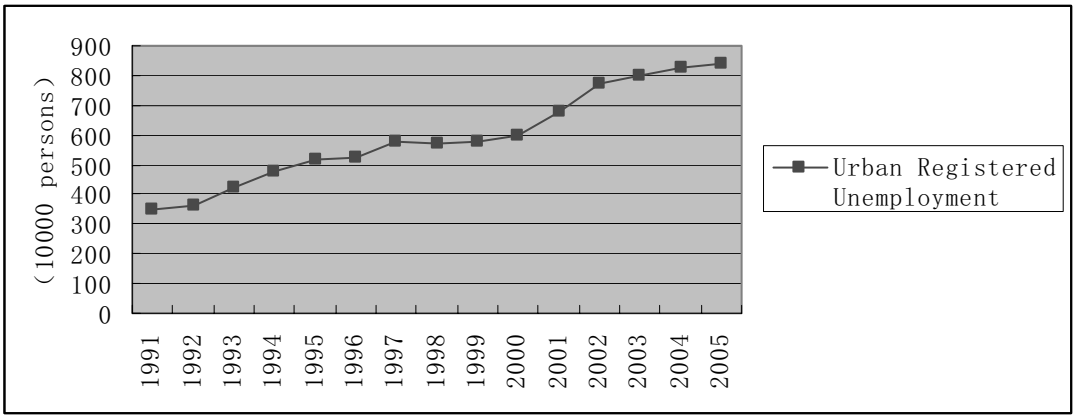


Figure 1. Urban Registered Uunemployment 1991-2005

Source: China Labor Statistical Yearbook 2006. Compiled by Department of Population and Employment Statistics National Bureau of Statistics, P. R. C & Department of Planning and Finance, Ministry of Labor and Social Security, P. R. C. Beijing: China Statistics Press. November, 2006.

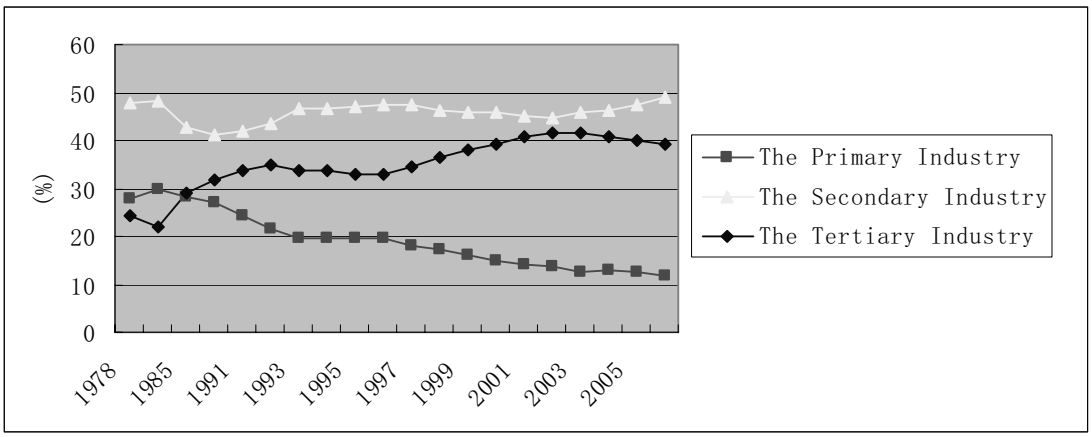


Figure 2. The Industrial Structure of China 1978-2006

Source: The Statistical Yearbook of China-2006. Compiled by National Bureau of Statistics of China. Beijing: China Statistics Press. November, 2006.

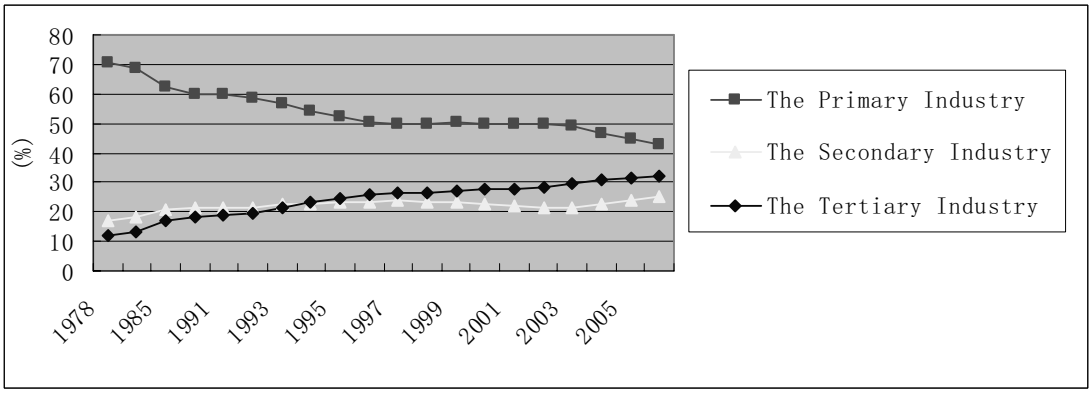


Figure 3. The Employment Structure of China 1978-2006

Source: China Labor Statistical Yearbook-2006, Beijing: China statistics press, 2006; Statistics communiqué of national economic and social development of People's Republic of China during 2006.

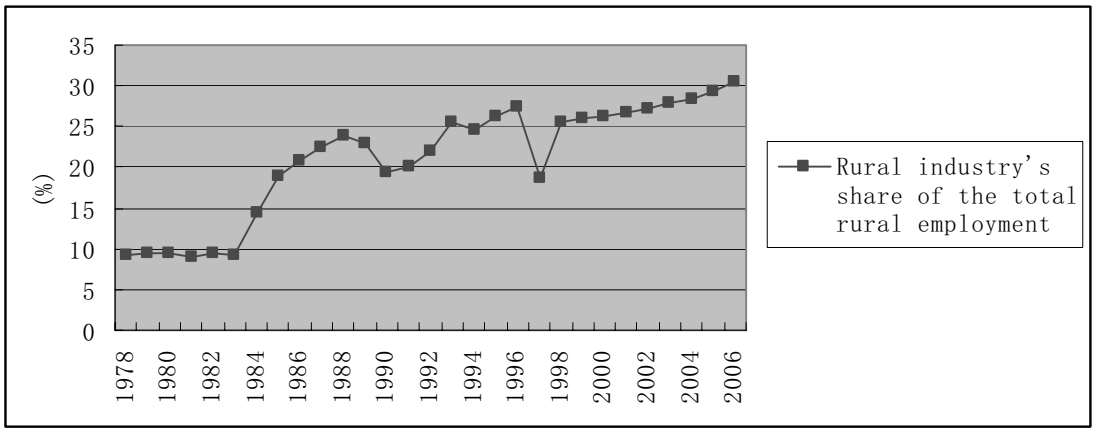


Figure 4. Rural Industry's Share of the Total Rural Employment in China 1978-2006

Source: China Labor Statistical Yearbook-2006, Beijing: China statistics press, 2006; Statistics communiqué of national economic and social development of People's Republic of China during 2006.