Analysis of China's Employment in Cities and Towns

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Abstract

Since the reform in transitional economies, the status of labor market in China has changed a lot, and unemployment problem is becoming increasingly acute in cities and towns. By calculating the labor force participation rate and analyzing the migration of rural labor into cities and towns, this paper studies the unemployment problem in cities and towns from the aspect of labor supply.

From the aspect of labor demand, regression analysis is made to reveal the affecting relations between employment and economic growth. Based on the above analysis, this paper reveals reasons for china's employment problem in cities and towns and gives some policy advices, such as deepening reform in the state-owned enterprises and the adjustment of economy structure to keep a certain economic increasing rate, enforcing the macro-control of the employment, developing enterprises with medium or small sizes and the tertiary industry, and setting up service system in labor market to promote employment.

Key words: Employment; Labor supply; Labor demand

INTRODUCTION

The employment is not only an economic problem but also a political issue. Employment has a vital bearing on people's livelihoods. It is the fundamental prerequisite and basic approach for people to improve their lives. China's employment regime has conducted into a market track since the reform and opening to the outside world. According to the State Council Information Office, China has a labor force of more than 1 billion people, and the number of people in employment is almost 780 million. The employment pressure is very great in china's cities and towns during the process of economic transition, and it has become a strenuous, arduous and urgent task to resolve. This paper makes an empirical study on the current supply and demand of labor force in china's cities and towns based on the statistical data, and give some policy advices to promote employment.

1. SUPPLY OF LABOR FORCE IN CHINA'S CITIES AND TOWNS

Based on the China's reality, if the amount of China's population is certain, there are two basic factors influencing the supply of labor force in cities and towns. Firstly, the labor force participate rate in cities and towns; secondly, the transferring rate of rural labor force from rural area to urban area. According to the data from the Population Census in 2010, China's population will keep rising until 2030. China's population will reach 1.45 billion in 2020 and 1.5 billion in 2030. At the same time, the ratio of the working-age population to the total population will change. Based on the number of population, we will make an analysis of the influence to the supply of labor force in cities and towns by the labor participation rate and the transferring rate.

1.1 Labor Force Participation Rate in Cities and Towns

The labor force participation rate indicates the proportion of the available "working age" population that is willing and able to work and is either employed or actively

seeking employment. It is found by dividing the labor force (total civilian labor force) by the civilian population. The calculation of the labor force participation rate is officially given by this formula.

$$Labor\ force\ participation\ rate = \frac{Civilian\ labor\ force}{Total\ civilian\ population} \times 100\%$$

Table1 provides the labor force participate rate in cities and towns in 1990, 2000 and 2005.

Table1
Labor Force Participate Rate (LFPR) in Cities and Towns in China (Unit: %)

Year age group	1990	2000	2010	$LFPR_{2000} - LFPR_{1990}$	$LFPR_{2010} - LFPR_{2000}$	$LFPR_{2010} - LFPR_{1990}$
15-19	49.13	35.19	24.87	-13.94	-10.32	-24.26
20-24	85.86	80.43	64.61	-5.43	-15.82	-21.25
25-29	93.45	88.32	86.82	-5.13	-1.5	-6.63
30-34	94.58	88.72	87.78	-5.86	-0.94	-6.8
35-39	94.30	89.09	87.81	-5.21	-1.28	-6.49
40-44	92.40	86.80	87.14	-5.6	0.34	-5.26
45-49	85.85	78.60	82.24	-7.25	3.64	-3.61
50-54	66.91	60.24	62.65	-6.67	2.41	-4.26
55-59	48.90	42.28	46.29	-6.62	4.01	-2.61
60-64	25.91	21.61	24.30	-4.3	2.69	-1.61
65-	10.74	9.20	15.49	-1.54	6.29	4.75
Total	74.47	67.67	64.29	-6.8	-3.38	-10.18

Source: "Tabulation on the 1990 Population Census of the People's Republic of China" , "Tabulation on the 2000 Population Census of the People's Republic of China", "Tabulation on the 2010 Population Census of the People's Republic of China".

According to the Table 1, the labor force participate rate in cities and towns has fallen gradually from 74.47% in 1990 to 64.29% in 2010. It is worthwhile to note that the labor force participate rate of young people has dropped fast from 1990 to 2010. There has been a sharp decline in the labor force participate rate between the ages of 15-19 by 24.26%, and the picture is similar between the ages of 20 and 24. The development of higher education is a major factor in the decline of labor force participate rate. Higher educational reform since the late 1990s provides young people more and more opportunities to receive higher education. So many young people especially in cities and towns give up chances to get a job and choose human capital investment. According to the Table 1, we can also see the labor force participate rate has also fallen in other age groups except for elder people 65+ from 1990 to 2010. In planned economy, many people especially women are under protection of employment policy. In market economy, enterprises will measure the cost and benefit of using female labor under the rule of maximum of profit. Because of physiologic and social factors, married women may cause losses to enterprises by reason of housework, pregnancy, childbearing and lactation. In this condition, enterprises always reduce female labor

demand. Some researchers point out China's female labor force participation rate has fallen gradually since the late 1990 s, which influenced the total labor force participate. Although the labor force participation rate in 2010 is lower than 1990 s, China's labor force participation rate is still high in the world according to data of International Labor Organization (ILO). Predictably, the labor force participate rate won't change dramatically except for unusual change of economic situation and employment pressure will remain because the labor participation rate will be higher than that of low-income, medium-income and high-income countries.

1.2 The Migration of Rural Labor Into Cities and Towns

With certain labor force participate rate, the migration of rural labor into cities and towns will greatly influence the supply of labor force in cities and towns. The more rapid migration rate is the higher ratio of urban population to total population and the more supply of labor force in cities and towns.

With China's continued industrialization and modernization, rural workers are increasingly finding employment in urban areas. The migration of rural labor into urban industrial settings continues to be an important

source of economic growth during this period of economic reform. Table 2 shows the proportion of urban population to total population from 1990 to 2012. Urban population proportion has continued to rise. In 2012, the proportion of urban population to total population was 52.6% with 26.2 points higher than the proportion in 1990 and the average annual growth rate is 3.18 %. However, the process of rural labor transfer will take a long period of time. It took approximately 80 to 100 years for the proportion of agricultural labor force to decline from 50% percent to 10% in Europe and the United States. In Japan, it took 38 years for the agricultural proportion to decline from 51.6% in 1947 to 8.8% by 1985. This is a 1.13% average annual reduction. In China, the transition will, likewise, occur over a protracted time period. This is due to a large numbers of rural laborers, an already high labor force participation rate, and the relatively low education level of rural laborers. The proportion of urban population to total population will continue to increase in the coming decades and this will increase the labor supply in cities and towns.

Table 2
Urban Population and Proportion (Unit: 10,000 persons, %)

Year	Total population	Urban population	Urban population proportion
1990	114333	30195	26.4
1991	115823	31203	26.9
1992	117171	32175	27.5
1993	118517	33173	28.0
1994	119850	34169	28.5
1995	121121	35174	29.0
1996	122389	37304	30.5
1997	123626	39449	31.9
1998	124761	41608	33.4
1999	125786	43748	34.8
2000	126743	45906	36.2
2001	127627	48064	37.7
2002	128453	50212	39.1
2003	129227	52376	40.5
2004	129988	54283	41.8
2005	130756	56212	43.0
2006	131448	58288	44.3
2007	132129	60633	45.9
2008	132802	62403	47.0
2009	133450	64512	48.3
2010	134091	66978	49.9
2011	134735	69079	51.3
2012	135404	71182	52.6

Source: China Statistic Yearbook, 2014

2. DEMAND OF THE LABOR FORCE IN CHINA'S CITIES AND TOWNS

In order to carry out analysis, it is assumed that the demand of labor force is determined completely by the factors of national economic increase, and other factors such as policy demand are not considered. The influence from the factors of national economic increase to the demand of labor force can be identified by the index of national economic increase such as the increasing rate of national income and that of gross domestic product (GDP) and the increasing rate of the fixed assets. It is proved that China's economic increase was in direct proportion with the demand of labor force since 1990. If we make a correlation analysis between the GDP of the cities and towns and the number of employees in the cities and towns, we can see that they have positive correlation relationship.

Table 3
GDP and Urban Employment

Year	Gross domestic product(GDP) (100 million yuan)	Urban employment(UE) (10,000 persons)
1990	18667.8	17041
1991	21781.5	17465
1992	26923.5	17861
1993	35333.9	18262
1994	48197.9	18653
1995	60793.7	19040
1996	71176.6	19922
1997	78973.0	20781
1998	84402.3	21616
1999	89677.1	22412
2000	99214.6	23151
2001	109655.2	24123
2002	120332.7	25159
2003	135822.8	26230
2004	159878.3	27293
2005	184937.4	28389
2006	216314.4	29630
2007	265810.3	30953
2008	314045.4	32103
2009	340902.8	33322
2010	401512.8	34687
2011	472881.6	35914
2012	519470.10	37102

Source: NBS, China Statistical Yearbook, various years

Using Excel to make regression analysis, and we can get the regression equation as belows.

$$UE = 18209.62 + 0.04186231 \times GDP$$

The equation has got through 1% significance test.

The demand of labor force in cities and towns is decided mainly by the GDP. We can use employment elasticity to reveal the relation between the economic growth and employment levels. It refers to the rate of employment growth to the rate of economic growth. The employment elasticity in China is averaging about 0.1, while the developed countries it is about 0.3 to 0.4. Usually, employment elasticity shows a gradually diminishing trend when economic growth has matured. The reduction in employment elasticity suggests fewer labor inputs are necessary to produce a given production output. GDP Annual Growth Rate in China averaged 9.14 percent from 1990 until 2012, reaching an all-time high of 14.20 percent in the fourth quarter of 1992 and a record low of 3.80 percent in the fourth quarter of 1990. But some institutions and scholars estimated that speed-up will postpone obviously in the next few years. Therefore, creating job opportunities will be a tough task with the decline in both GDP annual growth rate and employment elasticity.

3. REASONS FOR CHINA'S EMPLOYMENT PROBLEM

 In general, there are several reasons led to China's employment problem in the cities and towns. However the most important factor is the economic transition in China.

Employment has closely connection with economic efficiency and economic increasing，so different economic efficiency will cause different employment system. The high employment rate in planning economy is at the cost of low efficiency while the market economy demands high efficiency. So there will be serious unemployment when the employment system changes from planning system to market one. The contradiction between efficiency and employment is the main cause for China's unemployment problem.

Under planning system the contradiction between efficiency and employment was covered. China's government took the policy of unified employment which means that employing units recruited labor force according to the government's policy. Therefore the unemployment was covered. In addition, the rural labor force was forbidden to transfer to the cities and towns. They all should take part in rural labor with extremely low efficiency. In the first ten years after reform, the contradiction between efficiency and employment began to appear but not serious, the reasons are as follows. Firstly, in 1980's village and township enterprises with labor-intensive type were developing rapidly. Although they were poor in skills and equipment, they could employ lots of surplus rural labor force. Secondly, in 1980's whether in cities and in villages the market consciousness is weak in all trades. The market competence is not developed. So either enterprises or employees did not feel the pressure from market competence. The contradiction between efficiency and employment is still not obvious. Thirdly, the reform of the state-owned enterprises did not really begin. The state-owned enterprises still recruited their employees according to planning arrangement. That is to say that they still accepted labor force assigned by the plan and could not lay off surplus employees. Hence even the state-owned enterprises' economic efficiency was extremely low; the contradiction between employment and efficiency was still partly covered.

In 1990's especially after the middle of 1990's the situation had changed. Firstly, each enterprises whether they are the state-owned ones or not, they all tried to reduce their production cost under the pressure from market competence. They all began to lay off surplus employees to enhance the quality of their employees. Therefore the contradiction between efficiency and employment became serious. No enterprises still wanted to keep the situation of "high employment rate with low efficiency". Secondly, the labor cost was rising, and employing units were deeply influenced by the pressure. Therefore they wanted to change from the labor-intensive type to capital-intensive types or technique intensive type. What's more, the newly established foreign invested enterprises tended to be capital intensive and technique intensive too. Thirdly, government departments at all levels not only did not assign labor force to enterprises by administrative means any more but also permit enterprises laying off surplus employees for economic reasons and even announcing bankruptcy. In addition in 1990's the production rate in rural areas kept rising which released lots of rural labor force from the rural areas and they could transfer to cities under new policies. Consequently the contradiction between efficiency and employment caused current China's employment problem.

4. POLICY ADVICES

China's employment problem in cities and towns was the product of planning economy in nature because lots of redundant personnel were produced under planning system. These redundant personnel would be unavoidably released in the transfer from planning system to market one. In addition China's reform is an "evolutionary type" reform. Under this type，the transmission of economic system is a step by step one. Consequently the release of redundant employees will be in a long term. In another word current China's employment problem is still in development. Whether it would develop towards good or not would be decided by the whole reforming

process. While one thing is certain that China will have unemployment in great size in a certain period. It is a threat to both China's social stability and economic increase. So it should be highly taken care and the paper provides some advice as follows.

Firstly, China should try to keep a certain economic increasing rate because in the regard of employment, the higher the economic increasing rate is the more demand of labor force is. Therefore in order to reduce the pressure from employment, the economic increasing rate should be kept at certain level. From the view of macro economy, the economic increasing rate must be coordinated with other factors. Some researchers had made a study of the suitable economic increasing rate and concluded that an economic increasing rate between 7% and 9% is suitable to China's economy. In another word the increasing rate of GDP should be controlled between 7% and 9%. It is suitable to the deepening reform in the state-owned enterprises and the adjustment of economy structure.

Secondly the macro-control of the employment should be enforced. The statistic system and inspecting system on the unemployment should be set up. The inspection of unemployment should be based on the improvement of the unemployment registering system in cities and towns and the control of the condition on the transfer of surplus rural labor force and laid-off workers. Especially the inspection of key areas and key trades should be enforced. The statistic system of unemployment should be improved. There should be more statistic index in the system. The unemployment warning system should be perfected. It will provide exact information on the unemployment condition. So the concerted departments can take timely measures to keep the social stability.

Thirdly enterprises with medium or small sizes and the tertiary industry should be encouraged to develop. Enterprises with medium or small sizes and the tertiary industry need relatively less capital than big ones and other industries but they can employ more workers. So it is very important for China to develop enterprises with medium or small sizes and the tertiary industry to increase the demand of labor force. Among them collective enterprises and private enterprises are of more use in the employment of surplus labor force. Therefore the government should take detailed measures to protect their development.

Finally the service system in labor market should be set up. The government of the labor market should be enforced and the employment system under market system should be perfected. The reform of the employment system should be deepened to form a unified open competitive and ordered labor market. The development of rural labor resource should be enforced to reduce the pressure to the unemployment in cities and towns. The two-way choice systems between employers and employees should be taken shape and the rational transfer of labor force should be realized. Regulations on the recruitment training and dismiss should also be perfected to form an ordered employment environment. In a word all these measures aim at providing a good employment environment for unemployed personnel.

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