

How Close Is China to a Labor Market?

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1. Introduction

Since the late 1990s, China's labor market has witnessed great pressure indicated by increasing unemployment rate and declining labor force participation rate. The causes of the severe unemployment are threefold. First, due to the downturn of macro economy and rapid industrial structural change in late 1990s, the state-owned enterprises (SOEs), which lost their comparative advantage and competitiveness, have been unable to fully utilize their production capacity and became loss-makers. Second, the radical reform of SOE employment system, known as "breaking up the iron-rice-bowl", has worsened the situation. As a result, several million workers have been laid-off from SOEs. Third, massive rural laborers have migrated to cities, seeking urban jobs and bring competition into urban labor markets.

However, the official statistical system so far has not been able to provide sufficient information to depict this situation. Officially used indicator of unemployment is the registered unemployment rate, but it is widely believed as underestimating the actual unemployment and therefore questioned by domestic and international scholars (e.g. Solinger 2001a). Trying to fill the statistical gap, researchers have utilized indirect measures to estimate the "real level" of unemployment, producing various figures much higher than what officially admitted¹. Meanwhile, researchers have observed a contradiction between the declines in all sectoral employments and increase in aggregated employment of the economy as a whole, and this phenomenon puzzles some researchers. Because of the existence of household registration (or *hukou*) system that socially and statistically divides rural and urban residents, there is a lack of overall statistics on how many migrant workers there are in urban job markets and what role they play in urban sectors.

In general, since the late 1990s, there have been widely existing doubts and confusions in research circle about statistical figures on employment and unemployment, which leads to misunderstanding of the real situation in labor market developments and leads to a conclusion that the current situation of unemployment in China is not manageable. On the other hand, these confusions prevent policy-makers from identifying policy priority to coping with the situation. To understand China's labor market requires us to bear in mind that the Chinese economy is a fast growing and drastically changing economy. With the fastest growth rate in the world economy, it is unquestionable for China to witness an increase of employment, whereas industry-structural change and institutional transition generate double effects. First, as the continuation of the structural change in the entire reform period, the adjustment of industrial structure required by the WTO membership leads the economy to follow its

¹ For example, UNDP (1999, p. 99), by summing up the numbers of registered unemployment, officially reported laid-offs and unemployed migrant workers, estimated urban unemployment rate of 7.9 to 8.5 percent at the time. Also see Solinger's (2001a) review on the issue.

comparative advantage, which is embodied in labor-intensive industries, and therefore tends to create more jobs. Meanwhile, the same structural adjustment generates structural unemployment now that it requires the rise of new sectors with comparative advantage and fall of those without comparative advantage. Secondly, the market-oriented institutional transition has fostered labor market and made the labor force allocation much more efficient than before. On the other hand, the marketization inevitably involves the reform of breaking the iron-rice-bowl, which brings about the redundant workers and staffs being laid-off from their previous workplaces.

Therefore, the labor market developments in China have two dimensions: while there are severe unemployment and underemployment, the labor market plays increasingly greater role in allocating the labor force. Based on exploring China's official statistics on labor markets and analyzing some surveyed data, this paper explains the real situation on the labor market, examines the trend of labor market integration, discusses whether or not the severe unemployment is manageable and suggests appropriate policies related to fostering the expansion of employment of the economy.

2. Employment, Unemployment and Labor Force Participation

Lay-off vs. registered unemployment

Mass unemployment in urban China is a phenomenon emerged as the result of economic transition and structural adjustment in 1990s. Under the planning system prior to 1980s, urban laborers enjoyed a full employment guarantee and there didn't exist overt unemployment, so at the time when unemployment first appeared in latter part of 1990s, there wasn't an unemployment insurance system available to secure the laid-off workers. To avoid a possible social shock, a unique form of unemployment insurance was arranged by Center for Reemployment Service (CRS), which is established at enterprise level and provides the laid-off, or literally *xiagang* workers by the Chinese expression, with basic living allowance and pays social security premium for them. Enterprises as former employers, governments at central and local levels and unemployment insurance fund share the expenses needed. Although prevailing parlance is that each of these three parties bears one third of the expenses, the fact is that the three parties somewhat equally share the part of expenses paid for the laid-off's basic living allowance, as to the insurance premium paid for the laid-off, government budgetary money take a lion share. In 2002, for example, the total amount of money that CRS raised were 17.86 billion yuan, with a 17.2 percent contributed by enterprises, 17.5 percent transferred from insurance fund and 65.2 percent budgeted by government revenue. In the same year, the total amount of money that CRS expended were 17.76 billion yuan, with 62.2 percent on paying the laid-off for basic living allowance, 28.9 percent on paying pension premium for the laid-off, 5.1 percent on paying medical insurance premium for the laid-off, and 3.7 percent on paying unemployment insurance premium for the laid-off (NBS and MOLSS 2003, p. 152). Since in reality the numbers of the registered unemployed and the numbers of the laid-off are trade-off, government expenditure on either category is the sacrifice of another. Having recognized that *xiagang* arrangement is not

effective and market-oriented solution to secure unemployment, the government considers the *xiagang* as an interim program that should be replaced by explicit unemployment insurance.

Under the unique institutional arrangement for the laid-off, those who had lost previous jobs did not have to be registered as unemployed; instead they have remained in contracting with their former employers and enjoyed the basic benefits that CRS provides. As a large number of the laid-off are settled at the Center, the burdens by open unemployment can be eased, which has kept the registered unemployment rate low. Therefore, statistically, both lay-off and registered unemployment are all phenomena identical to what unemployment means in the western market economies, but their scalars are complementary and can be traded-off one for another. Table 1 shows a pattern of their relationship: as one rises, the other falls. As is shown in Table 1, in 1998, total number of urban *xiagang* workers was 8.8 million, of which nearly 6 million were laid-off from SOEs. In addition to that, 5.7 million were registered as unemployed. All in all, 14.5 million urban workers were officially considered as losing their jobs. In 1999, without significant increase in registered unemployment, the numbers of the laid-off increased to nearly 9.4 million, of whom 6.5 million from SOEs, causing totally 15.1 million urbanites losing jobs. Since then, the numbers of the laid-off declined and the numbers of the registered unemployed increased, indicating a transformation from *xiagang* arrangement to unemployment insurance scheme.

Table 1 Complementarity in Numbers of Lay-off and Registered Unemployment (million)

	SOE layoff	Total layoff	Registered unemployment
1998	5.95	8.77	5.71
1999	6.53	9.37	5.75
2000	6.57	9.11	5.95
2001	5.15	7.42	6.81
2002	4.10	6.18	7.70
2003	2.60	-	8.00

Source: NBS and MOLSS, *China Labor Statistical Yearbook 2003*; NBS and MOLSS, *Statistical Bulletin on Labor and Social Security Development, 2003*

In 1999, the government promulgated *the Regulations on Unemployment Insurance*, which creates necessary institutional conditions helping the transformation from layoff subsidy system to unemployment insurance system. As the unemployment insurance system gradually matures, the government encourages the transformation of layoff workers from being protected under the CRS to be covered by scheme of unemployment insurance. After this transformation, enterprises no longer shoulder the burden of taking care of the laid-off, while the unemployed have to face job competition, which helps the labor market develop. While the CRSs were terminated in ten municipalities and provinces and the number of SOE *xiagang* workers were reduced to 2.7 million in the end of 2003, it is scheduled that all CRSs will be phased out by the end of 2004. This transformation conditioned by enhancement of social security coverage has lessened enterprises' burden and got labor market work. Meanwhile, thanks to the government proactive employment policies, the decline in the numbers of *xiagang* workers has exceeded the increase in numbers of registered unemployment. By 2002, while the numbers of urban *xiagang* people decreased to less than

6.2 million, of whom 4.1 million were laid-off from SOEs, and the numbers of registered unemployment increased to 7.7 million, the sum of the two categories dropped to 13.9 million.

Since the *xiagang* arrangement was mainly designed to cope with and to cover job losses of SOEs and urban collective enterprises, it is unable to reflect the actual situation of urban unemployment. In the mean time, because the registered unemployment scheme by definition only covers those job losers who (1) are at ages 16-50 for male and 16-45 for female², (2) receive *xiagang* benefits, and (3) are locally registered as urban *hukou*, registered unemployment is not a sufficient indication of actual situation of unemployment. Recognizing the complementarity in numbers of lay-off and registered unemployment, some scholars simply sum up the two groups of people as a proxy of total urban unemployment. This is inappropriate, because in reality a large proportion of the laid-off and registered unemployed actually found a work while receiving benefits (Cai, 2002, p. 103). Therefore, only by a survey in accordance with commonly used international definition can we obtain a comparable indicator of unemployment.

Surveyed unemployment rates

In 1996, the National Bureau of Statistics (NBS) started the household-based Sample Survey on the Population Changes (SSPC). Based on this survey, relatively accurate unemployment could have been calculated, because it follows ILO recommended definition of employment/unemployment³. Though this calculation has never been done officially, one can still do an indirect estimation. From published data on components of population, we first estimate economically active population in urban areas by subtracting rural employment from the whole country's economically active population⁴, then we take the difference between economically active population and employed population as unemployed population in urban areas. By definition, the ratio of urban unemployment over urban economic population is surveyed unemployment rate (see Column 4 in Table 2).

Table 2 Changes in Urban Labor Market (million and percent)

	Economic population	Employment population	Unemployment population	Unemployment rate (S)	Unemployment rate (E)	Labor force participation rate
1995	198	190	7.9	4.0	4.0	72.9
1996	207	199	8.2	3.9	4.5	72.9

²In 2003, the Ministry of Labor and Social Security broadened the range of ages for registering unemployment to 16 to 60 for males and 16 to 55 for females.

³A person at working ages between 16 and 64 is considered unemployed only if her labor market state meets all the following criteria. First, she did not have a paid work for more than one hour in the week prior to the surveying time. Second, she is available to take a job within two weeks if the job is provided. Third, she has been actively searching a job in the past three months. If she fails to meet the first criterion, she is actually in a position of employment; if she does not fit the second and/or third criteria, she is out of labor force.

⁴In rural areas, the household responsibility system guarantees that everybody has his or her share of land, so it is a reasonable assumption that rural unemployment is as low as negligible since laborers either work in non-agricultural sectors or in agriculture.

1997	218	208	9.8	4.5	5.0	72.2
1998	231	216	14.5	6.3	5.6	71.2
1999	238	224	14.0	5.9	5.9	72.9
2000	251	232	19.1	7.6	6.5	68.5
2001	253	239	14.1	5.6	7.0	67.3
2002	264	248	16.2	6.1	7.3	66.5

Source: NBS, *China Population Statistical Yearbook*, various issues; NBS, *China Statistical Yearbook 2003*; Giles et al., 2003

The Institute of Population and Labor Economics, Chinese Academy of Social Sciences conducted China Urban Labor Survey (CULS) in 5 Chinese cities (Shenyang, Wuhan, Shanghai, Fuzhou, and Xian) in 2001 and 2002. Three factors tend to overestimate unemployment rates if one takes the average of the 5 cities to represent the unemployment rate of urban China as a whole. First, according to 2000 census, unemployment rates in cities were higher than that in towns and the 5 large cities surveyed had higher unemployment rates than other cities⁵. Second, the main questionnaire of this survey in 2001 failed to obtain information about labor force participation and availability of accepting a job, and therefore some of out-of-labor workers might be included into unemployment. Third, spot test done afterwards shows that some of beneficiaries of lay-off subsidy, unemployment insurance and minimum living standard guarantee tended not to report their reemployment. A complementary survey was conducted in the latter part of 2002, which enables us to consider the possibility of out of labor force and thus to estimate more reasonable unemployment rates. Based on the complementary survey and 2000 census, after making some assumptions, a “real” unemployment rate has been estimated (Giles et al., 2004). As is shown in Column 5 in Table 2, this estimated unemployment is quite close to that calculated from NBS- published data.

Labor force participation

Both surveyed and estimated unemployment rates reported above are lower than what most researchers and observers expected, because those people, who had experienced unemployment and later quit from labor market, are not counted as unemployed. What follows we look into the changes in labor force participation that reflect “discouraged worker effect”. As is shown in column 6 of Table 2, labor force participation rate in urban China dropped by 9.6 percent in the period 1995 to 2002. Literature suggests that the change in labor force participation can be a cyclical phenomenon of labor markets (Clark et al., 1981; Flaim, 1984). Examining labor markets fluctuation thus requires intense consideration of labor force participation in order to gain a more comprehensive understanding of employment and unemployment, and the subsequent welfare implications of any proposed public policies on unemployment.

Unlike what have happened in most developed countries where labor force participation

⁵ According to 2000 census, the unweighted average unemployment rate for 345 cities at prefecture level and higher was 7.91 percent, whereas it was 16.08 percent in Shenyang, 10.57 percent in Shanghai, 9.51 percent in Fuzhou, 11.83 percent in Wuhan, and 8.22 percent in Xian.

tends to decline because of income effect (Mincer, 1993, Section 1; Hamermesh and Rees, 1993, Part One/Labor Supply), the decline in labor force participation in urban China comes from a discouraged worker effect – that is, the long term unemployed lose their faith in the labor market and no longer look for jobs, and potential new entrants to the labor market delay their job search. Based on 2000 census data, we calculate both unemployment rates and labor force participation rates of population aged above 16 by province and plot them on the maps in Figure 1, respectively. The contrast from two maps is obvious – that is, in provinces, where unemployment rates are high, the labor force participation rates are low, and *vice versa*. Statistically, the correlation coefficient between the two rates is -0.64, proving a discouraged worker effect.

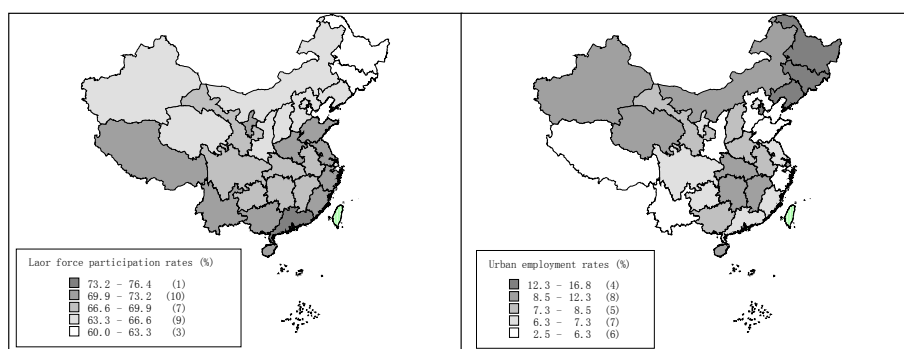


Figure 1 Comparison between Unemployment and LFPR by Province

Source: Author's calculation from 1 percent sampling of 2000 census long form

Labor market responds to cyclical fluctuation of the economy not only through changes of employment/unemployment, but also through changes of labor force participation. The multifaceted employment pressure caused by SOEs reform, industrial adjustments and the macroeconomic cycle has been reflected in a reduction of job opportunities, an increase in unemployment, and a decline in labor force participation. Since the decline in labor force participation comes from a discouraged worker effect, this labor market state produces problems similar to unemployment (Cai and Wang, 2004a). First of all, all factors, especially human capital, have theoretically expected directions and effects on individual laborers' decisions about participation and therefore their performance in the labor market. It is evident that the recently emerged fall of labor force participation in urban China is not a long-term phenomenon, but rather a cyclical reflection of macroeconomy. For individuals, human capital or educational attainment is significant in choosing to be in or out of the labor force. Secondly, family background and demographic features such as family size, numbers of infant children, gender, age, and education all impact individuals' choice of labor force participation. Different demographic groups have different job opportunities, experiences and performance in the labor market. Finally, existing literature argues that these two labor force states of unemployment and out-of-labor mirror different responses by non-working people (Flinn and Heckman, 1983; Flaim, 1984). That is, while the unemployed often eagerly search for jobs and respond promptly to any job opportunities, those who are out of the labor force are reluctant to respond to any opportunities presented.

3. Informalization or Marketization?

The serious unemployment caused the following two effects. The first effect is that it strengthened to some extent the policy of the local governments to protect the local employment. The local governments have to be responsible for stability of societies at a local level and thus often implement some short-term policies that obstruct the expansion of labor market. (See Cai, Du and Wang, 2001). More often than not, local governments intervene in labor adjustment in enterprises and sometimes ask enterprises not to fire workers. In order to reduce the employment competition between outside and local laborers, they ask enterprises not to hire outside laborers and increase costs of labor migration. The second effect is that the severe employment situation makes the local governments depend on the labor market to solve the problems of employment and reemployment and adopt more deregulated policies that encourage developments of labor market, small and medium-sized enterprises and the diversified employment. These two effects have all led to informalization of employment.

The increase in unemployment rate and decrease in labor participation cause many to have the impression that there has been no increase in employment in China since the 1990s, or even there has been absolute decrease in employment. For example, Rawski (2001) takes “zero employment increase” as evidence to question on China’s GDP growth performance after the late 1990s. If we just observe the state and urban collective sectors that were traditionally only absorbers of urban employment, the employment has indeed declined year by year since the latter part of 1990s, as is shown in Figure 2. However, because the components of China’s economy become diversified, the employment structure experienced huge changes. Only changes in unit employments in state and urban collective sectors could no longer fully reflect changes in total employment.

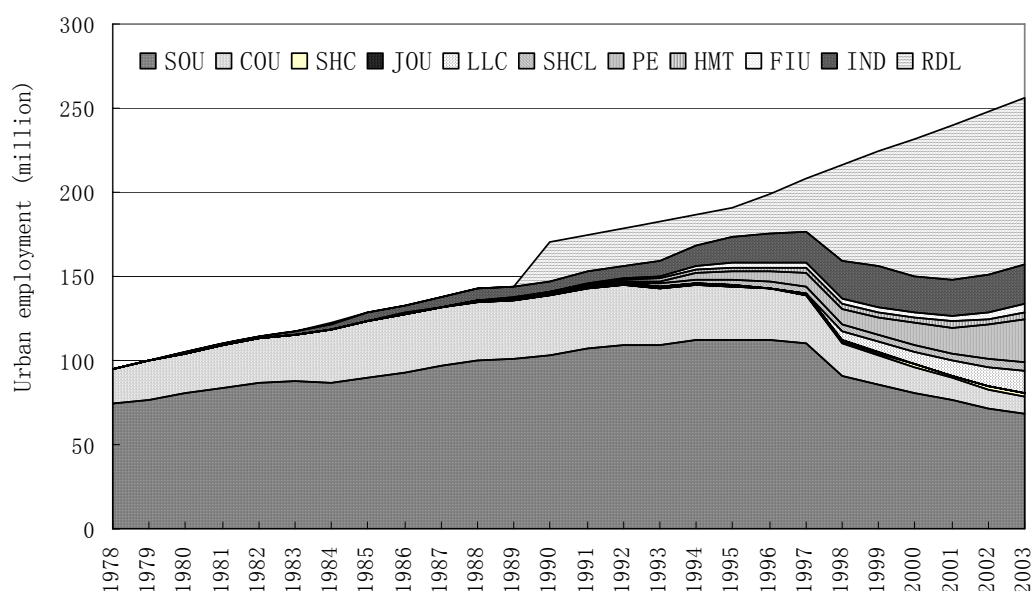


Figure 2 Changes in Employment Structure since the Reform

Note: SOU – State-owned Units, COU – Collective-owned Units, SHC – Share-holding Cooperative Units, JOU – Joint Ownership Units, LLC – Limited Liability Corporations, SHCL – Share Holding Corporations, Ltd., PE – Private Enterprises, HMT – Units with Funds from Hong Kong, Macao and Taiwan, FIU – Foreign Funded Units, IND – Self-employed Individuals, RDL – Residual.

Source: NBS, 2004

In practice, urban employment has been always growing since the reform started and it reached 256.4 million in 2003, 8.6 million more than the previous year. During the entire period from 1978 to 2003, the average annual growth rate was 4.1 percent – that is, 6.45 million extra jobs were created each year on average. In the same period, the share of state-owned units in total urban employment declined from 78.3 percent to 26.8 percent, the share of collective units declined from 21.5 percent to 3.9 percent, while employments created by other newly emerged units such as limited liability corporations, share holding corporations, Ltd., private enterprises, enterprises with funds from Hong Kong, Macao and Taiwan, foreign funded enterprises and self-employed business increased from zero to two-thirds of the total, making up a diversified employment. Statistically, the substantial increase of unit employment in such newly emerged sectors, however, does not sufficiently offset the decline in state and collective employments, causing a residual between classified and total employments. This residual of employment represents 96.4 million urban employees in 2002, which is more than the sum of state and collective employment and accounts for 39 percent of urban total employment. Explaining why this residual employment emerges statistically and practically will help us better understand the attributes of the employment growth and the changes in employment structure under a more liberalized labor market.

Statistically, the residual between total and unit employments appeared in 1990. Prior to that very year, figures of urban employment were collected through all production units with independent accounts and registered individual enterprises. Currently, official statistics on employment come from two statistical systems.

One is the Comprehensive Labor Statistics Reporting System (CLSRS), which provides information of employment covering all independent accounting units. Under the CLSRS, the information about employed people in enterprises (units) comes from the statement of the labor situation of all units including the state-owned units, collective-owned units, share-holding cooperative units, joint ownership units, limited liability corporations, share holding corporations, Ltd., units with funds from Hong Kong, Macao and Taiwan, and foreign funded units. Adding the numbers of self-employment and the employment of private enterprises provided by the State Administration for Industry and Commerce, the summation generates the total urban employment of CLSRS.

There are at least three factors that might cause the CLSRS to underestimate the statistics of employment. The first factor is that some units were never included in the numerical statement system, which causes the error of “missing units”, as a result of enormous changes in the boundaries of enterprises with SOE restructuring. The second factor is that units had a motivation to deliberately underreport the numbers of employees, or even not to report the numbers at all, in order to reduce their burdens because the employment number in a unit is related to some obligations such as paying premiums to the social security programs. The third factor is that the employment numbers of private enterprises and self-employed business obtained from the registration of enterprises and family business at State Administration for Industry and Commerce are usually the employment numbers when the enterprises register their business, and do not include the increased number in the process of the development of the enterprises. At present, the boundary between the self-employed business households and

private enterprises was not very clear. According to the state regulation, self-employed business is referred to those who employ seven people or less. When a business's employment exceeds this limitation, it should be registered as a private enterprise. However, in fact, many enterprises that had many more than seven people were registered as self-employed business and reported a smaller employment number at the same time. This problem has caused the State Administration for Industry and Commerce to underestimate the employment numbers in private enterprises and self-employed business.

Another is the household survey-based Sample Survey on the Population Changes (SSPC) that covers 1% of total population. Initiated in 1996, SSPC takes urban sample based on residence but not *hukou* to represent the states of labor force. With a multi-stage systematic PPS cluster sampling scheme, about 400 thousand individuals are randomly chosen. Because this survey follows common standard of statistics and ILO recommended definition of employment/unemployment, the resultant data are relatively accurate and comparable. The difference between the larger number of urban employment collected from SSPC and the smaller number of employment from CLSRS results in a missing employment (Cai and Wang, 2004b). Many researchers incorrectly claim zero increase in employment and minor elasticity of employment to economic growth because their researches are based on data of employment from CLSRS, the only available source while disaggregating the employment by sector or/and by province.

The expansion of the missing employment not only manifests the incapability of the traditional labor statistics to reflect the actual labor market situation under the diversified and complicated economic structure, but also indicates a progress of marketization and a tendency of informalization in allocating labor force, a result of increasingly severe unemployment and labor mobility. This informal channel has overwhelmingly employed rural-to-urban migrants and reemployed the urban laid-off and unemployed, making contribution to the growth of gross employment in recent years.

It is observable that after the reform labor force began and continues to migrate more widely between rural and urban areas, and among different regions and sectors. Based on 1 percent sampling data of the 2000 census long form⁶, 131 million internal migrants, who by definition changed resident places (township, town and community) between 1995 and 2000 for more than 6 months, were counted. Of all migrants, those who changed their resident places without altering residence registration account for 65.1 percent, of whom 45.9 percent migrated in seeking working opportunities. That is, totally 39.1 million migrant workers worked in places other than their resident places for more than 6 months in 2000. One source released in 2004 suggests that the number of rural migrants across regions (township and town) reached 100 million. If one counts workers without urban *hukou* as migrant workers, currently they occupy 57.6 percent of total jobs in secondary sector, 52.6 percent in wholesale and retail trade and catering services, 68.2 percent in processing manufacturing, and 79.8 percent in construction (CIIC, 2004). There is one thing for sure that legitimated by *hukou* system, migrant workers are systematically discriminated against in their job entry and thus they can mainly take up jobs in the informal sectors and informal jobs in formal sectors. Since the informal jobs concentrate mainly in some industries, migrant workers' employment is

⁶ China's 2000 census includes short and long questionnaires. Everyone was required to fill out the short questionnaire. A ten percent sample of the total population filled out the long questionnaire.

unevenly distributed among industries, comparing to their urban counterparts (Figure 3).

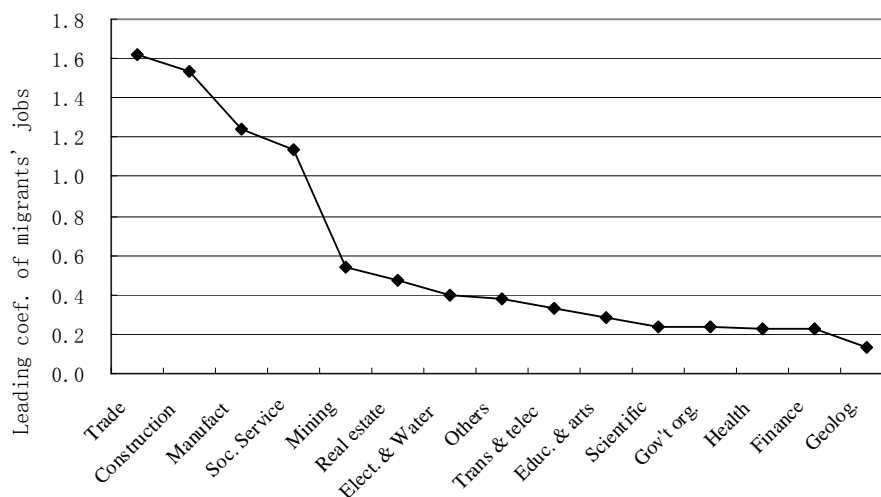


Figure 3 Relative Shares of Migrant Workers in Urban Industries

Note: Leading coefficient is calculated as ratio of employment proportion of migrants in certain sector to that of local workers.

Source: Author's calculation from 1 percent sampling data of 2000 census long form

During the period 1998 to 2002, totally 41 million urban workers were laid-off by their employers and about two-thirds of them were reemployed. While being reemployed, they often either changed types of post or changed their industries, experiencing an informalization of jobs. In CULS samples, 949 people experienced job changes resulted from lay-off, unemployment, involuntary early retirement and voluntary turnover in the period 1996 to 2001. Comparing the difference in job concentration between original and replace displaced jobs shows the structural changes in urban employment (Figure 4). Significant changes can be seen in three aspects. First, while manufacturing employed 42.1 percent of total 949 urban workers before their job separations, the proportion of reemployed workers in their second and third jobs dropped to 14.4 percent in manufacturing. Secondly, proportion of workers engaged in retail and wholesale trade and catering service in their original jobs was 13.1 percent, but it increased to 25.9 percent in second and third jobs. Thirdly, proportion of workers in social service was 8.4 percent of the total as original jobs, it increased to 18.9 percent in redeployed jobs. In general, those industries which have absorbed most of the workers who changed jobs are more likely to be informal.

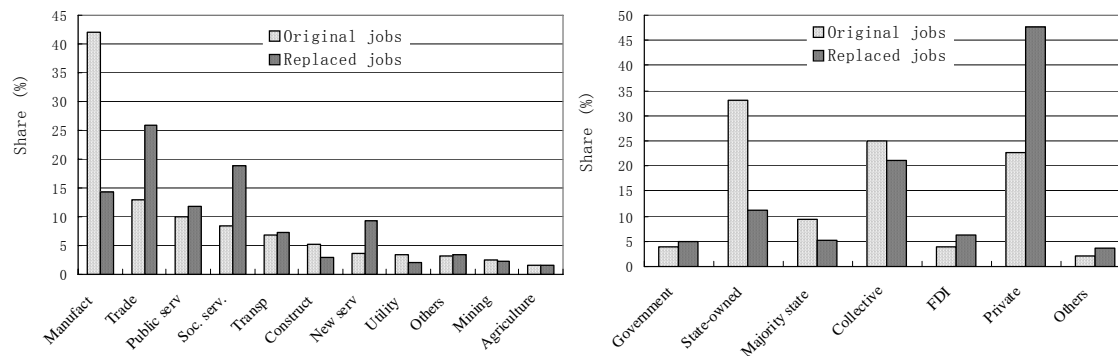


Figure 4 Structural Comparisons of Original and Displaced Jobs

Source: CULS

Another feature of job displacement is the transformation of ownerships between the previous jobs and the reemployment jobs. Looking into the changes in ownership structure of employment before and after the job mobility, one can clearly see what the relocation brought about. After this mobility, many former employees of SOEs, majority state-owned and collective sectors, while being reemployed, transformed to none-public sectors. While the share of employment in wholly state-owned enterprises dropped from 33.1 percent to 11.2 percent, the employment share of private sector increased from 22.7 percent to 47.6 percent (Figure 4). The experience of the reemployed former SOE workers provides a typical example. Of the total former SOE workers who had left state sector jobs and later found new employment, less than one fourth found work in state-owned enterprises, about one fifth found jobs in collective enterprises, whereas about 40 percent found their new jobs in private sector.

This universal informalization of employment has brought about a reduction of security and safety in labor market (Solinger, 2001b). To see a bigger picture, this has greatly reduced the coverage of social security and other benefits related to work units that once existed at least for urban workers. In the period 1990 to 2002, despite it was declared to be a period of rapid reform and rebuilding of public pension system, the coverage rate of the public pension scheme for the employed only increased from 30.5 percent to 41.7 percent. This, to great extent, goes along with a surge in short-term, temporary and non-contracted jobs and self-employment.

To migrants without *hukou* identity in cities where they find a job, the informal jobs they take up, which are commonly regarded as three-D-jobs – dangerous, dirty and demanding, guarantee little job security, working conditions, work protection and social welfare. It is common for migrant workers to work over hours without extra pay, and their wages are low and very often in arrears, only because the informal nature of those jobs make it easy for employers to evade from formal rules regulating the labor markets. According to the 5th National Census in 2000, the proportion of migrants who work 6 days a week is nearly twice as that of urban local employees, and the proportion of migrants working 7 days a week is 58 percent higher than that of local workers. Similarly, the reemployed workers' wage, access to social security and working conditions have also worsened greatly. In Table 3, we compare the wage differences between no-job-change local workers, migrant workers and reemployed workers.

Table 3 Hourly Wages Comparisons between “Formal” and “Informal” Jobs (yuan)

	Shanghai	Wuhan	Shenyang	Fuzhou	Xian
Hourly wage of no-job-change workers	8.8	5.0	4.8	6.4	4.4
Hourly wage of the reemployed	4.7	2.5	3.6	4.3	4.1
Hourly wage of local workers	8.3	4.8	4.6	6.3	4.4
Hourly wage of migrant workers	5.9	2.8	3.7	4.0	3.3

Source: CULS

As a result of worsening social security, wage rate, and working conditions caused by

employment informalization, labor-management relationship has been exacerbated. In 2001, in the cases of labor disputes that labor arbitration agencies have processed, the proportion of the cases about labor compensation in private enterprises was 143 percent higher than that in the state sector; on the issue related to security and benefits, the number of cases of disputes in private enterprises were 14 percent higher than that in the state sector; on the issue of labor protection, the number of disputes in private enterprises were 221 percent higher than that in the state sector. Here, these private enterprises were relatively formal ones, and at least they were registered. As for those enterprises that have not formally registered, the impact of their irregular nature on labor protection, etc, is more obvious.

On the other hand, the changing patterns of employment in terms of sectoral and ownership adjustments follow the direction of economic reforms and therefore are market-oriented. While causing problems in terms of job security, social protection and wage rate, this emerged new employment and its mechanism do help utilize the immature labor market to relocate labor force and solve the problems of urban unemployment and rural underemployment during the transition period. So, one should understand the employment trend in a broader perspective. The development of labor market involves a whole set of institutional arrangements. The levels of labor market function differ when a country is at its different stages of development of labor market. The present informal ways of employment in China commonly enjoy the advantage of market force, and actually have become the main path for developing labor market. Letting the market work therefore is the first and the most important step, which allows the rest segments of the market function to develop accordingly. China so far still enjoys its abundant labor force and market-determined wage rate should thus be lower than that in traditional sectors determined institutionally. One study (Wang, 2004) shows that while there is discrimination in wage determination against migrant workers, their earnings, comparing to that of local workers, give higher returns to human capital and little returns to political capital.

4. Whither China's Labor Market?

Despite the controversy and confusion on the employment/unemployment issues, the labor market development in China does demonstrate its changing features, which not only indicate the progress of the overall reform but also affect the sustainability of economic growth. Therefore, an assessment of labor market development is necessary for a full understanding of China's development and transition. Now that the present labor policies and wage policies in China have their origin of planning system, the extent of labor market development can be assessed from two angles.

The first is to see whether the labor mobility has augmented. The economic rationale tells us that as long as the incentive mechanism works, laborers have strong motives to seek better opportunities of work and higher pay by moving from one place to another. Once the institutional barriers deterring labor mobility are dismantled, the move becomes actual and cannot be ceased. Meanwhile, as the government motivation for developing the economy intensifies, it can enjoy the gains of efficiency from reallocation of labor force. Therefore, holding the other constant, the governments tend to encourage labor mobility. From the

experiences of the reform, people have observed the great increase in scope and scale of labor mobility between sectors and regions, though the governments' motives and efforts of carrying forward the reform and, as a result, the progress in labor market development differ across regions and sectors.

The second is to see to what extent work compensation reflects human capital and work efforts and wage rate reflects the demand for and supply of labor. When there is alternative for workers, they certainly choose the one fitting their human capital endowment the best and compensating their efforts the most. As the other side of the story, employers, to compete for the best workers with others, tend to do things to improve the extent to which the compensation they pay does reflect workers' human capital and efforts in work. Moreover, with the increasing share of non-state sectors, wage rates move towards an equilibrium level determined by demand for and supply of labor. When there is severe unemployment, which brings about job separation and labor mobility, the wage rigidity can no longer insist. In sum, it is expectable that the wage rate becomes more and more determined by market forces, as the result of labor policy reforms.

It is true that the government still intervenes the labor market, and therefore the employment arrangement and wage determination of SOEs are influenced more by institutional but not market forces. However, since the share of SOEs' workers in total urban employment became small, SOE's employment can no longer represent the situation of urban labor market. The diversification of employment and pluralism of sectors unavoidably strengthen the competition in labor market, and consequently labor market plays more and more important role in labor allocation. After two and half decades of reform, the labor market in urban China has divided into two sectors – traditional sector where market force does not fully play a role of allocating labor force and newly emerged sector where market mechanism allocates labor force. Both progress and backwardness of labor market development in China can be observed in the dualism. While many successful reforms have been made in labor policies, a host of institutions inherited from planning system remain in place and maintain this fragmented dual labor market, deterring labor mobility between rural and urban sectors, ownerships, and industries. Among others, the *hukou* system is the origin and legitimacy of policies and regulations impeding labor mobility, wage convergence and labor market integration. To assess the progress of the labor market development and to reveal the unfinished reforms in labor policies, therefore, we need to examine (1) how labor markets are integrated among regions, (2) what institutional barriers remain to keep a sectoral monopoly, and (3) why migrant workers are still discriminated against in job entry and wage determination.

Labor market integration among regions

According to economic theory, both labor mobility and market-based wage determination would lead to a trend of labor market integration. The extent to which labor markets integrate is an indicative of how developed, and how competitive, an economy's market system is. The formation of single wage rate is one of the most important features for an integrated labor market. Under a competitive market environment, both enterprises and individuals can freely enter any sector and region and migrate to others to seek the best

economic opportunities. Through perfect labor mobility, regional wage differences tend to be eliminated – that is, competition and mobility tend to equalize marginal productivity of labor in all markets, and workers with same level of skills tend to receive equal wage.

Assume each Chinese province is a local labor market, on which local wage rate is determined, the changes in the aggregated deviations of wage rates in all provincial markets reflect the general trend by which they diverge from single wage, the increase (or decrease) of the deviation represents wage divergence (or convergence) among provincial labor markets. Taking the sector of manufacturing in Beijing as a reference group and controlling for sectoral factor causing wage difference, we first calculated relative wages of all provinces, and then calculated the annual mean value of deviations among labor markets from 1995 to 2002. The results show a declining deviation of both nominal and real wages (Cai and Du, 2004). During the period of eight years, the aggregated deviation of wage has decreased by 14.7 percent in nominal term and by 14.3 percent in real term. Even if we cannot infer a general trend of labor market integration in China due to the short time series, at least the results do not support Young's (2000) and Poncet's (2002, 2003a, 2003b) conclusions that labor markets in China become more and more segmented between regions.

Regional wage deviation can be also examined by ownership. Some scholars (e.g. Meng, 2000, p. 95) observe that labor market segmentation is typically embodied in SOEs. Thus, state ownership, by preventing enterprises from autonomously hiring and laying-off workers and laborers from free entering labor market, was an important cause of labor market segmentation during the planning period. Since the late 1990s, the SOEs have experienced dramatic restructuring, laying off redundant employees and causing a dramatic increase in lay-off and unemployment during the period.

Does this reform reflect a general increase in marketization, or is it just a cyclical employment cut? Applying the same method as above to process SOE data, the wage deviations of SOEs are calculated. Despite the general trend of wage convergence in manufacturing, wages in manufacturing SOEs slightly diverged among regions in recent years, from 10.1 in 1998 to 10.9 in 2002. Based on this observation, it is plausible to infer that the labor market integration effect generated by SOE reform characterized by laying-off redundant workers has not so far offset the fragmentation effect associated with immobility of SOE workers among regions. Meanwhile, labor market integration outside the formal sector cannot be statistically observed. Therefore, the consequence of SOE reform should be evaluated by overall labor market integration, but not only by changes in regional wage deviations of SOEs.

Sectoral monopoly-induced wage difference

The wage difference between enterprises' ownerships is an important component of the total difference in wage, because the segregation of ownerships in China causes labor market fragmentation. For example, for those SOE monopolized sectors, labor market entry requires certain identity for individual status – significantly *hukou* identity. This is especially true when urban unemployment became severe since the late 1990s and the local and central governments have to bear the responsibility to redeploying the laid-off and unemployed former SOE workers. The domination and monopoly of SOEs continue the institutional

rigidity of wage determination and thus deviate the wages in certain industries from market equilibrium, resulting in the insistent difference in wage rate among sectors.

Taking “government sector” as a reference group and controlling for regional difference of wage, we estimated the marginal effects of wage by sector in 1993, 1996, 1999 and 2002 (Cai, Wang and Du, 2004). The estimated coefficients indicate the advantage or disadvantage of wages in each sector relative to “government sector”. For the four years examined, the biggest marginal effects of wage are significantly found in the highly monopolistic industries dominated by SOEs, among which air transportation, railways, postal and telecommunications, and finance and insurance have been widely blamed for their monopoly. The smallest marginal effects of wage are mostly found in competitive sectors such as road transportation, beverage and catering, retails, community services. If we examine the magnitude and changes of marginal effects of wage by dividing all sectors into two groups – ten sectors with the biggest coefficients and ten sectors with the smallest coefficients, a positive correlation between share of SOEs and marginal effect of wage can be found. In the ten sectors with the biggest marginal effects of wage, the average share of SOEs was 80 percent in 2002, whereas in the ten sectors with the smallest marginal effects of wage, the average state share was only 45.6 percent. For sectors of beverage and catering, construction and retail, average state share was less than 40 percent.

Having revealed the general trend of regional disparities of wage and the existence of SOE monopoly in some sectors, one can expect that the contribution of regional factor to overall wage difference has declined, while the contribution of sectoral factor to overall wage difference has increased. By decomposing Theil entropy and Atkinson index that describe the overall disparity of wage, this expectation can be justified. As is shown in Table 4, while the overall wage difference widened over time, with 93.3 percent of increase for Theil entropy and 67.2 percent of increase for Atkinson index during the period 1993 to 2002, the contribution proportion of sectoral factor increased from 56.7 percent (Theil) and 59.0 percent (Atkinson) to 62.1 percent and 64.7 percent, respectively.

Table 4 Sectoral/Regional Relative Contributions to Wage Difference

	1993	1996	1999	2002
Theil entropy	0.030	0.056	0.066	0.058
Sectoral contribution (%)	56.7	46.4	40.9	62.1
Regional contribution (%)	43.3	53.6	59.1	37.9
Atkinson index	0.061	0.101	0.116	0.102
Sectoral contribution (%)	59.0	46.5	44.0	64.7
Regional contribution (%)	41.0	53.5	56.0	35.3

Source: Cai, Wang and Du, 2004

Institutional discrimination against migrants

Even after two and half decades of market-oriented reform, the continued existence of *hukou* system brings about wage differential between migrant workers and local workers in urban China. While the systematic differences in educational attainment and other individual characteristics between migrant and local workers do favor urban local workers in pay, *hukou*

status generates wage discrimination against migrant workers in cities. First, migrants are confined in labor demanding and low paid sectors and posts, which causes the first type of discrimination. Second, even if they enter certain sectors and take certain jobs, they are treated differently from their local counterparts, which causes the second type of discrimination. Thus, we can decompose the overall wage difference between migrant and local workers into four components, which are (1) explained by individual characteristics in job entry, (2) explained by individual characteristics within sectors, (3) unexplained in job entry, and (4) unexplained within sectors⁷.

By analyzing the CULS data (Cai, Wang and Du, 2004), we see obvious differences in job entry and pay between migrant and local workers. If we categorize in-charge persons in government, non-profitable institutions and enterprises, professionals and technical persons and office staffs as “white collar jobs” and workers in trade and services, agriculture, handlers in factories and transports and others as “blue collar jobs”, 92.3 percent of migrant workers are blue collared, while 32.17 percent of local workers are white collared. If the categorization is taken by the levels of pay, 94.8 percent of migrant workers are engaged in low pay sectors, while 76.8 percent of local workers in low pay sectors. For all types of job, a difference in wage rate between migrant and local workers exists. On average, migrants’ hourly wage is 4.05 yuan and 28.9 percent lower than local workers’ (5.70 yuan). By employing a ready decomposition method, we find that of the total difference in wage between migrant and local workers, 22.3 percent can be explained by individual characteristics while entering a certain sector, 17.7 percent can be explained by individual characteristics in pay within sectors, 41.1 percent remain unexplained while entering a certain sector, and 18.9 percent is unexplained in pay within sectors. The latter two categories sum up a wage discrimination against migrant workers in urban sectors.

5. Conclusions and Policy Implications

Labor market development is a core part of China’s economic transition. The market-oriented reform of labor policy is a process of institutional transition, on the one hand, and it is also dependent on reforms in other areas of the economic system, on the other. As the result of the overall reform, labor market matures and larger and larger part of workforce has been allocated through market forces. Thanks to the government programs aimed at assisting the urban laidoff, unemployed and discouraged to be back to employment and the labor market development that absorbs mass rural-to-urban migrant laborers, despite there remains noticeable employment pressure and tension in labor relations, the general labor market situation is manageable.

Having witnessed that, it is good to believe that China will keep gaining from its low labor cost in manufacturing, which is also its main source of competitiveness during the course of globalization. However, the fragmented labor markets that block up labor mobility and maintain institutional wage are incapable of supplying labor to the regions and sectors with wage rate increasing. Therefore, breaking up the segmentation of labor markets will

⁷ By sectors, here we combine posts with ownerships, referring them to self-employment, workers in public units, workers in non-public units and technicians and managerial staffs in non-public units.

sustain low wage rate, making China's labor-intensive products competitive in longer time. We summarize what unfinished tasks remain for labor market development in rural and urban China and suggest measures and path to accomplish the relevant reforms.

First, removing the barriers to labor mobility between rural and urban areas would be the breakthrough for further labor market development. The complete abolition of *hukou* system is a key agenda for reform, which would eliminate legitimate base of all obstacles preventing labor market from developing. The paces of migration policies reform centering in *hukou* system differ from city to city, because *hukou* status in different types of city contains different benefits, or there is difference in degree to which urban residents obtain public services through market forces among cities. Thus marketizing the social service is precondition for complete *hukou* system reform since the reform is part of marketization process. The *hukou* reform is in fact a coordinated reform involving a package of reforms.

A central measure of the coordinated reform is separating the entitlement of social welfare and public services from *hukou* identity. Under the circumstance that laborers migrate with *hukou* containing benefits, individual decision of migration is made not only by comparing the opportunities of employment, but also by comparing the *hukou* content between regions. This would produce extra incentive for migrating, and the potential disorder and congestion in the process of migration would become excuses to delay the reform. In practice, the actual concern in discussing about *hukou* system reform is to lay an institutional foundation for free labor mobility and equal entitlement to employment, social security, and other public services among all citizens. Thus, eliminating benefits that *hukou* identity contains not only purifies the reform and makes its objective clearer, but also lessens the resistance from vested interest group of the *hukou* system and thus eases social turbulence possibly produced by the reform.

Secondly, breaking up the SOE monopoly is also prerequisites for free labor mobility among industries and ownerships. Although SOE reform has not shown a significant success in terms of SOEs' viability in a competitive environment, the reform can be said of success in the way of declining share of SOE and increasing role non-state sectors play in economic growth of the country as a whole. Therefore, the alleviation and eradication of SOE monopoly can be expected through the expansion of non-state-owned enterprises and small business that bring competition to markets. The key policy-orientation is to create equal competitive conditions for both state and non-state enterprises in order to enhance SOE's viability and non-state enterprises' ability to enter all competitive industries.

Thirdly, the further reform of social security system should aim to enhance its portability. Rebuilding the social security system and widening the coverage of basic programs have been the major concerns in previous process of the reform, because only when there is no need for the government to cure the unemployment problems by intervening enterprises' decision-making, can labor market freely work. However, even all urban workers could be covered by the programs, the lack of portability of those social security programs deters labor mobility among regions, sectors and ownerships.

Finally, adopting a labor market regulation model that works for China is urgently brought up to the agenda of policy-making. The first commandment for the policy choice is to get incentive right by guaranteeing the basic role of labor market in allocating labor force. The overall market development since 1990s is not the cause leading to mass lay-off and

unemployment; instead, it is the reason for expanded employment and effective reemployment. Therefore, government policies and regulations, while serving as regulating labor market and easing the tension of labor relations, should not do anything to reduce the competition and flexibility of the labor market. Two points can be made to respond to the prevalent criticism about China's labor standard. First, although China has been the fastest growing economy since the initiation of reform, it is still at relative low-income stage, rural-urban income gap is among the biggest in the world. It is the market force but not any artificial forces that keep the general wage rate for unskilled workers low. Second, there is no law of one institution in terms of labor market regulations (Freeman, 1998). Market economy allows a great diversity, why should China be an exception?

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