Marketization and/or Informalization?
New Trends of China's Employment in Transition

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Abbreviations

FGR: Fast Growing Region
SOE: State Owned Enterprise
CULS: China Urban Labor Survey
IC: Investment Climate
NBS: National Bureau of Statistics
ILO: International Labor Organization
WTO: World Trade Organization
CASS: Chinese Academy of Social Sciences
CLSRS: Comprehensive Labor Statistics Reporting System
SSPC: Sample Survey on the Population Changes

1. **Introduction**

Since the late 1990s, China's labor market has witnessed great depression 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 not been able 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 further exacerbated the situation of unemployment. Third, massive rural laborers have migrated to cities to seek urban jobs and bring competition into urban labor markets. As a result, several million workers have been laid-off from SOEs, becoming unemployed or being out of labor force.

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. Meanwhile, those confusions prevent policy-makers from identifying policy priority to copping with the situation. To proper 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, it is unquestionable for China to witness an increase of total employment, whereas industry-structural change and institutional transition generate double effects. First, as continuation of the structural change in the entire reform period, the adjustment of industrial structure required by the WTO membership commitments leads the economy to follow its 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.

The serious unemployment generated the following two effects. The first effect is that it motivated to some extent the policy intention of the local

governments to protect the local employment. The local governments have to be responsible for social stability 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 with local *hukou*. 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 encouraging the developments of labor market, small and medium-sized enterprises and the diversified employment. These two effects have both led to informalization of employment.

The rest of the report is organized as follows. In section two, we introduce data used in this report, including information on sampling methods, size of survey samples, sources of other references, etc. Section 3 discusses the labor market development both in FGRs and in other regions. Apart from the issues analyzed in the sister paper of this one, we try to reflect the labor market development from some firm level characteristics and the patterns of job turnovers happened on labor market in recent years. In Section 4, we move to the discussion of new trend of informalization on China's labor market in recent years. Based on our own definition of informal employment and taking the advantage of two round urban household survey data, we display the size, components, characteristics, and impacts of informalization. In the final section, we draw some policy recommendations according to the empirical studies of this report.

2. Data

In this report, we utilize data from various sources to depict the labor market developments in different regions. There are two categories of data used in this study: aggregated data at macro level and data at micro level. For each dataset, there coexist its superiority and drawback, so we have to use those datasets complementarily so as to portrait an elephant instead of one trunk or ear.

Using data at macro level, mostly provincial data or national level data, we are going to identify the fast growing regions. The advantage of macro data is its comprehensiveness. It is good to believe that the macro data are helpful to identify the regional difference when existing disparities of development among regions. But the drawbacks of the macro data are obvious. First, the high aggregation of

macro-level data makes it possible to bias labor market information sometimes. Second, too few indicators are available at macro level to reflect concrete situations of labor market. When analyzing and comparing the labor markets among regions, we have to make good use of data from sample surveys at individual, household, and firm level. Of course, the tradeoff exists since we have to sacrifice some variations among regions because only a few regions are selected in those sample surveys. Another disadvantage of using micro survey data is that regions usually are not randomly selected and the samples are not nationally representative, so we should be careful about drawing conclusion for whole country from those datasets but focus on comparisons between FGRs and other regions identified by macro data.

Macro data are mainly from published materials. Household and individual data include CULS1 and CULS2. Firm data refers to IC. See Table 1 for an introduction of the data used in this report.

Table 1 Introduction of Data

Dataset	Provincial Data	CULS1	CULS2	IC
Survey Title	Not Applicable	China Urban Labor Survey: first round	China Urban Labor Survey: second round	China Investment Climate Survey
Survey Year	Relevant years	2001	2005	2002
Level of data	Provinces	Households and Individuals	Households and Individuals	Firms
Sampling Strategy	Not Applicable	(i) Urban Household Sample Frame: Proportional population sampling approach was used to sample an average of 15 households in each of 70 neighborhood clusters, by making use of 2000 census to sample clusters and households. On average 10 households were interviewed in each community, with additional 5 for spares. (ii) Migrant Sample Frame: 2000 Census was first used to sample 60 communities. Once a neighborhood was selected, the administrative records of the neighborhood committee were used to constructing a sample frame of all registered migrants in the neighborhood.	(i) Urban Household Sample Frame: Proportional population sampling approach was used to sample an average of 15 households in each of 50 neighborhood clusters. On average 10 households were interviewed in each community, with additional 5 for spares. (ii) Migrant Sample Frame: Proportional population sampling approach was used to sample communities according to local population of street. In each community, 15 migration households were sampled, and 10 of them were interviewed.	Firms were randomly selected subject to a few constraints: (i)For manufacturing firms, the main plant is the unit to be covered, with a minimum of 20 employees. For the service firms, the entire (local) firm is the unit to be included, with a minimum of 15 employees. (ii) Size of firms selected in each sector was roughly proportional to actual distribution of firms among the selected sectors in ESO's provincial database of the universe of firms. (iii) Total firms selected for each city are subjected to quota predetermined for each of cities.
Sample Size	Not Applicable	In each city, 700 urban households and all the individuals in the households who are aged 16 and above were surveyed, and 600 individual migrants were surveyed	In 5 cities surveyed in CULS1, 500 urban households and all individuals in the households; in small sized cities, 3000 migrant households and all individuals within the households were surveyed	2400 firms in total sample; 800 enterprises are service and the rest are manufacturing
Regions Covered	All provinces	Shanghai, Wuhan, Shenyang, Fuzhou, Xian	Shanghai, Wuhan, Shenyang, Fuzhou, Xian, Daqing, Wuxi, Yichang, Benxi, Zhuhai, Baoji, Shenzhen	Dalian, Benxi, Changchun, Haerbin, Hangzhou, Wenzhou, Nanchang, Zhengzhou, Wuhan, Changsha,

				Shenzhen, Jiangmen, Nanning, Chongqing, Guiyang, Kunming, Xian, Lanzhou
Definition of FGRs	Pearl River Delta and Yangtze River Delta	Shanghai, Fuzhou	Shanghai, Fuzhou, Wuxi, Zhuhai, Shenzhen	Hangzhou, wenzhou, Shenzhen, Jiangmen
Advantage of Data	Sketch the whole picture of economic growth and employment growth among provinces	Detailed information of work history from 1996 to 2001; Possible to observe job turnovers by job; detailed information on employment shocks	Both local and migrant households were surveyed and more information for comparison; for 5 big cities, available for comparison with data collected 4 years ago	Available for observing labor demand, human resources practice at firm level.
Use in this study	Identify the fast growing regions (provinces/cities) with high economic growth rates and high employment growth rates	Comparison basis of CULS2	Describe labor market development and comparisons between FGRs and other regions; analyze trend, size, and features of informal employment among regions; explicate dynamics of labor market, such as job turnovers	Describe basic characteristics of firms and patterns of labor uses; Analyze labor demand of firms both in FGRs and in other regions;
Sources	Statistical Yearbooks	Institute of Population and Labor Economics, CASS	Institute of Population and Labor Economics, CASS	The World Bank

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3. Labor Market Developments: FGRs Vs. Others

In the sister report, we have already shown that the outcomes of labor market differ between FGRs and other regions. Nevertheless, labor market development is a synthetic phenomenon companied by economic growth and regional development and could be observed from many aspects and at different levels. In this report, we further look into the similar issue from some other angels. As a background, aggregated labor market outcomes are introduced first. We then observe labor market characteristics from firm behaviors. With the availability of individual data, job turnover is also taken as one indicator to reflect the difference of labor market developments between FGRs and other regions.

(1) Overall Labor Market Outcomes

Despite the commonly believed severity of unemployment in urban China, 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 admitted[1]. 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.

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 population[2], and then we take

[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.

[2] In rural areas, the household responsibility system guarantees that everybody has his or her share of contracted land, so it is a reasonable assumption that

the difference between economically active population and employed population as unemployed population in urban areas. By definition, the ratio of urban unemployment over urban economically active population is surveyed unemployment rate (Table 2). Figure 1 portrays the distribution of the two indicators in China. There are two arguments relating to the labor market situation. One is a doubt about the surveyed unemployment rates during the period concerned, because they were not as high as most people believe. Another is a belief that there has been zero increase in urban employment. In what follows we explain why those questions arise.

Table 2 Recent Situation of Labor Market in Urban China (%)

	Surveyed Unemployment Rates	Registered Unemployment Rates	Labor Force Participation Rates
1995	4.0	2.9	83.1
1996	3.9	3.0	80.9
1997	4.5	3.1	80.0
1998	6.3	3.1	79.5
1999	5.9	3.1	81.7
2000	7.6	3.1	75.8
2001	5.6	3.6	74.6
2002	6.1	4.0	74.0
2003	6.0	4.3	71.0
2004	5.8	4.2	71.6

Sources: China Population Yearbook in 2005, China Statistics Press; Yearbook of Labor Statistics in 2005, China Statistics Press; China Statistics Yearbook in 2005, China Statistics Press.

(2) Employment and Wage in FGRs and Others

Employment and wage are two basic signals on labor market. Using IC data, we calculated some indicators of the firms both in FGRs and in other regions. As is presented in Table 3, firms in FGRs tend to hire more workers on an average and their employees are 4 years younger than those in other firms. Firms in other regions report about one year more of years of schooling of their workers, which might be explained by their use of more workers from rural areas as is found in other studies (Cai, et al., 2005). Both in FGRs and in other regions, most firms claim they have training program for their employees. But when we look at individual level data, the proportion of workers receiving

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rural unemployment is as low as negligible since laborers either work in non-agricultural sectors or in agriculture.

trainings from employers is much lower than their employers claimed[3]. It seems that firms in FGRs prefer more labor-intensive technology, they hire more workers for basic production and the numbers of employees with advanced technical title were found fewer than firms located in other regions.

Table 3 Wage and Employment in FGRs and Other Regions

Variables	FGRs	Others	All
Employment per firm (person)	583	532	541
Average years of staff (year)	30	34	33
Years of Schooling of Staff (year)	10.6	11.8	11.6
Fraction of firms training workers (%)	93.7	92.9	93.0
Composition of staff by occupation (%)			
Production workers (%)	57.2	50.2	51.3
Engineering and technical personnel (%)	10.8	12.7	12.4
Managerial personnel (%)	19.7	21.8	21.4
Service personnel (%)	6.6	7.2	7.1
Other employees (%)	5.8	8.1	7.7
Employment by technical title			
Employees with advanced technical titles (%)	10.1	12.6	12.2
Employees with intermediate technical titles (%)	34.3	38.7	38.0
Employees with preliminary technical titles (%)	55.5	48.8	49.9
Employment by contract type			
Proportion of permanent workers (%)	30.7	55.3	51.2
Proportion of temporary workers (%)	59.9	35.8	39.8
Employment by labor demand			
Proportion of firms with redundant workers (%)	10.0	22.6	20.5
Proportion of firms with worker shortage (%)	8.0	7.6	7.7
Normal (%)	82.0	69.8	71.8
Labor Flexibility: Manager's power on hiring, firing, and wage (%)	87.9	84.9	85.4
Capital/Labor ratio (thousand yuan/person)	85.4	75.9	77.5
Annual Wage per employee (yuan)	15050	10097	10924
a. Annual wage per worker (yuan)	9669	8219	8466
b. Annual wage of engineering and technical employee (yuan)	20114	13625	14718
b/a	2.08	1.66	1.74

Source: calculation from IC.

Simple statistics of firms also indicate that labor market in FGRs is more flexible than in other regions by the following regards. First, on an average,

[3] This could also be caused by the differences of definitions of training used and measurement errors.

managers in FGRs have more autonomy powers to make decisions on hiring, firing, and pay, which are basic indicators reflecting the labor market flexibility. In addition, we can find that firms in FGRs have much higher proportion of temporary workers, who only hold somewhat flexible contract with employers. As a result of the flexibility of hiring, firing and pay, firms in FGRs report lower share of redundant workers of about 10 percent while the number is 22.6 percent in other regions.

On the average, workers in FGRs earn about 50 percent more than those in other regions despite their individual characteristics[4]. It seems that not only the regional disparities of general standard of living but features of firms contribute to the difference in pay. When we break down the employees into workers and engineers, we find more significant wage disparities between skilled and unskilled employees in FGRs. The skilled people earn 108 percent more than unskilled workers in FGRs while the number is 66 percent in other regions. Since increasing disparities between skilled and unskilled worker have also been observed in other developed labor markets (Acemoglu, 2002), we take the fact as an indication of more developed labor market in FGRs given that the return to human capital was historically depressed in China.

(3) Do Small Firms Facilitate Employment?

As is introduced in the other report, economic growth pattern in FGRs differs from that in other regions. In a region where economic growth is driven by investment from government transfers, big projects and large-sized firms are always preferred. As far as employment is concerned, do small firms and large firms facilitate employment in a same way? To answer this question, by looking at the data both for FGRs and for other regions, we firstly want to know if the small firms are more labor intensive and then we look into the relationship between employment changes and firm size. Given that small firms prefer more labor-intensive technology and have faster growth rates of employment, we may infer that small firms tend to play more active roles in job creation relative to their larger counterparts.

In table 4 we break down the firms for both regions by quintile of sales. It is evident that small firms tend to hire more labor in terms of given amount of capital used[5]. From both FGRs and other regions, we see a monotonically

[4] In fact, we have already seen that workers in FGRs have fewer years of schooling than those in other regions.
[5] Capital refers to carried value of fixed assets here.

decreasing employment per unit capital with the increase in of firm size. With each one thousand yuan capital, the bottom 20 percent group hire 0.49 person in FGRs and 0.61 person in other regions while in the top 20 percent group the number is 0.03 and 0.023 respectively.

Table 4 Employment by Quintile of sales (person)

	<20%	20~40%	40~60%	60~80%	>80%	All
			Employment			
FGRs	59.8	157.1	260.7	444.0	1993.3	603.6
Others	57.7	81.7	177.9	328.8	2016.6	532.4
All	61.8	78.9	205.2	341.0	2024.3	540.8
			Employment per thousand yuan capital			
FGRs	.49	.10	.09	.04	.03	0.15
Others	.61	.28	.17	.06	.023	0.22
All	.56	.27	.16	.06	.03	0.22

Source: calculation from IC.

The quintile breakdown may not be suitable for regional comparison since the same group according to the quintile division might have different actual size. So we compare both regions according to the actual sales revenue of the firms. We define the firms with sales revenue less than 1 million as small enterprises, that between 1 million and 5 million as medium sized, and that above 5 million as large firms. Figure 1 presents the comparisons of employment between those three groups of firms in both regions. The general trend of decreasing employment per unit capital with the increasing size of the firms remains the same as it is described in the case of sales breakdown. Compared to those in other regions, small firms located in FGRs have absorbed 40 percent more laborers with same amount of capital and even large firms in FRGs are also more labor intensive. There is little difference in employment pattern for medium sized firms between the two regions.

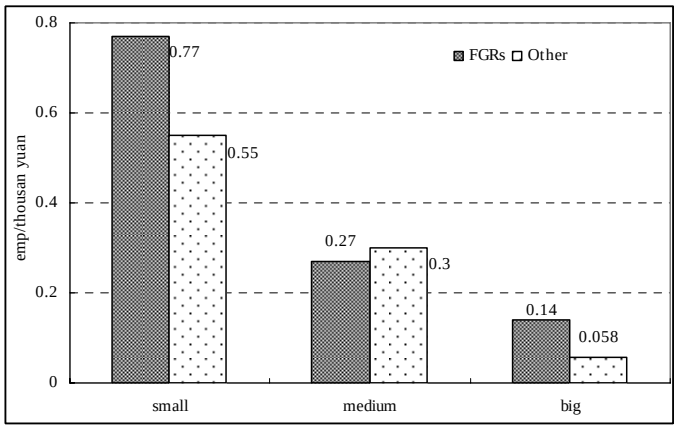

Figure1 Employment per Thousand Yuan Capital: FGRs vs. Others

Source: calculation from IC.

Looking into the employment changes of firms with different size is another way to observe what kinds of firms contribute more to job creation. In table 5 we measure firm size by sales, fixed capital, and employment. For each measure we break down the firms by quintile of the measured indicators in the initial year and see the relationships between the initial size and employment growth performance in the period. Two periods are reported in the table, one is from 1999 to 2002[6], which is long period of our data set. The other one is the employment growth rate from 2001 to 2002, which reflects the most recent employment growth in firms. As is shown in Table 5, the small firms have fast employment growth no matter what measures of size are used and where the firms are located. With the increase in size, the diminishing employment growth appears when we measure the size by employment. If we look at the other two measures, the trends are broken off at medium sized firms in FGRs. This could be because the relative small sample size in FGRs.

Table 5 Size and Employment Changes (%)

Size Measure	FGRs		Other		All	
Sales in 1999	99~02	01~02	99~02	01~02	99~02	01~02
<20%	51.1	23.0	44.3	10.6	41.4	9.58
20~40%	26.0	14.4	19.8	1.91	22.2	8.25
40~60%	51.4	15.7	13.7	5.77	15.3	3.53
60~80%	20.8	4.03	14.9	3.94	21.9	7.12
>80%	24.6	0.08	5.88	0.39	10.4	0.03
Capital in 2000	00~02	01~02	00~02	01~02	00~02	01~02
<20%	30.5	32.2	18.2	9.63	19.4	13.4
20~40%	17.1	10.4	13.9	6.61	13.7	7.79
40~60%	23.6	8.25	6.78	2.82	9.30	2.73
60~80%	9.28	6.48	0.42	2.58	3.64	2.78
>80%	3.77	0.51	-2.00	1.02	-1.00	1.80
Employment in 1999	99~02	01~02	99~02	01~02	99~02	01~02
<20%	57.4	18.6	59.5	17.1	59.6	17.9
20~40%	54.9	21.8	24.7	7.66	27.9	9.60
40~60%	29.5	12.4	16.3	0.02	20.1	1.29
60~80%	21.0	4.93	6.84	-1.14	11.6	1.46
>80%	10.9	0.1	-10.1	-1.45	-6.22	-1.21

Source: calculation from IC.

In short, the analysis on relationships between enterprise size and employment growth has revealed the pattern that small sized firms have faster

[6] For fixed asset, we only have data in 2000, 2001, and 2002, so the long period is from 2000 to 2002.

employment growth than their larger counterparts do, which implies that small firms tend to be more labor-intensive in terms of industrial and technological choices.

(4) Job Turnovers in Different Labor Markets: Voluntary or Involuntary?

Job turnovers occur frequently in many labor markets. Usually voluntary job turnovers take place when one's alternative wage is higher than his/her current labor compensation. But sometimes involuntary job turnover happens due to employer side reasons. According to the observations by Mincer and Jovanovic (1981), the probability that newly hired young workers (who are in their twenties) leave their jobs within 24 months is about 75 percent. In contrast, workers who have already stayed in one job for 10 years have less than 5 percent probability to leave their jobs. In developed economies, it is very common that workers change their occupations, industries, and firms in first years of their carriers and then are settled at one job for longer time. This seems to be a typical pattern of job turnovers on a mature market.

However, job turnovers rarely happen in the planning economies because almost all the jobs are allocated by planners and individual hardly have any choices on job. Since the economic reform initiated in the early 1980s, it has been not surprising to see laborers changing employers, occupation, economic sector, and working places. However, China began to seriously reform its employment system in urban area following the radical economic restructuring of SOEs in the mid 1990s. Since then, involuntary job displacements have come about in the form of laid-off, job separation, early retirement, etc. Meanwhile, thanks to development of labor market, more and more labor forces have been allocated by the invisible hand. In this section, we reveal the pattern of job turnovers in contemporary China by examining two effects, shock effect and marketization effect, which characterize labor market in transitional China differed from that in developed markets. In a regional comparison, we found that pattern of job turnovers in FGRs is closer to that of developed economies while employment shock, i.e., involuntary turnovers dominate the behaviors of job changes in other regions. Hereafter, we define job turnover as one who changes job at least one time but not because of regular retirement by reaching officially regulated retiring age.

a)Who Change Jobs?

The individual characteristics of those who change jobs help to identify causes of the job turnovers. This part of the report tries to answer the question of who are likely to be displaced from one job to others by examining the social and demographic characteristics of workers in a regional comparison.

Education and Age Profiles

The first thing we concern about for job turnover is the characteristics of those who change jobs. The CULS2, by asking a question about if one has changed jobs over three year period from 2002 to 2005, allows us to identify who have and who have not changed their jobs during the period. We summarize their characteristics in Table 6. Among 3048 persons in CULS2 sample who were employed in 2002, about 21.6 percent changed their jobs during the three year period. If we only look at means of the figures, about 54 percent of male workers at their early forties with 11 years of schooling changed their jobs and there is no significant difference in this between FGRs and other regions. But if we categorized them into groups by age, it is easy to find that in FGRs younger groups are more likely to change jobs while the proportions of job changes are quite similar among age groups in other regions. It seems that the age profile of job turnovers in FGRs is similar to developed labor markets while it is not true for other regions. The breakdown statistics also displays difference of education between the two regions. With increasing of years of schooling, the possibilities of job turnovers are decreasing in other regions and show an inverted U-shape relationship in FGRs.

Table 6 Job turnovers from 2002-2005: CULS2

	FGR	Other	All
Total employment in 2002	1413	1671	3048
Change jobs during 2002-2005	227	431	658
% male	57.5	53.8	53.8
Average age	41.2	41.2	41.2
Average years of schooling	11.3	11.1	11.2
% job turnovers by age group			
16-29	23.3	27.5	25.7
30-39	18.6	25.0	22.7
40-49	12.8	25.0	18.8
50+	13.7	26.2	19.3
% job turnovers by years of schooling			
0~6	12.8	40.5	26.3
7~9	18.2	32.0	26.3
10~12	18.8	25.7	22.3
12+	6.6	16.9	13.1

Source: calculation from CULS2.

How do we interpret the facts of those two breakdowns? First, if job turnovers are mostly personal choice, it is very common that one changes jobs when he/she just enters the labor market and then stays for a long time at his/her satisfactory jobs. But if job turnovers are caused by outside shocks, one will leave his/her jobs involuntarily. In the latter case, it is reasonable to see a

relatively even distribution of job turnovers among age groups. Second, better education is useful for workers to maintain their jobs when employment shocks on labor market are present (Giles, et. al, 2006). So in other regions characterized by serious job destruction and thus by low labor market participation rate and high unemployment rate, a worker with more years of schooling is more successful to be survived from job loss. In FGRs, the effects of education on job turnovers are mixed. On the one hand, better education is still useful to maintain one's satisfying jobs. On the other hand, more years of schooling also give one more chances to find a new job after being unemployed and capability to leave his/her current job voluntarily. That is why we observe a non-linear relationship between job turnovers and education in FGRs.

Years on the Jobs and Job Turnovers

The relationship between years on the jobs and job turnovers is another dimension that allows us to observe pattern of job turnovers. Data in United States labor market shows that young workers (who are in their twenties) tend to change their jobs frequently in the very early period of their careers while older workers would like to stick to one job during the career (Mincer and Jovanovic, 1981). We plot two non-parametric graphs for young workers who in their twenties and older workers by using CULS2 data. The young workers, as top panel of Figure 2, have almost similar pattern over the years on the job between the two regions despite that workers in FGRs stay on their jobs stably after four years of career.

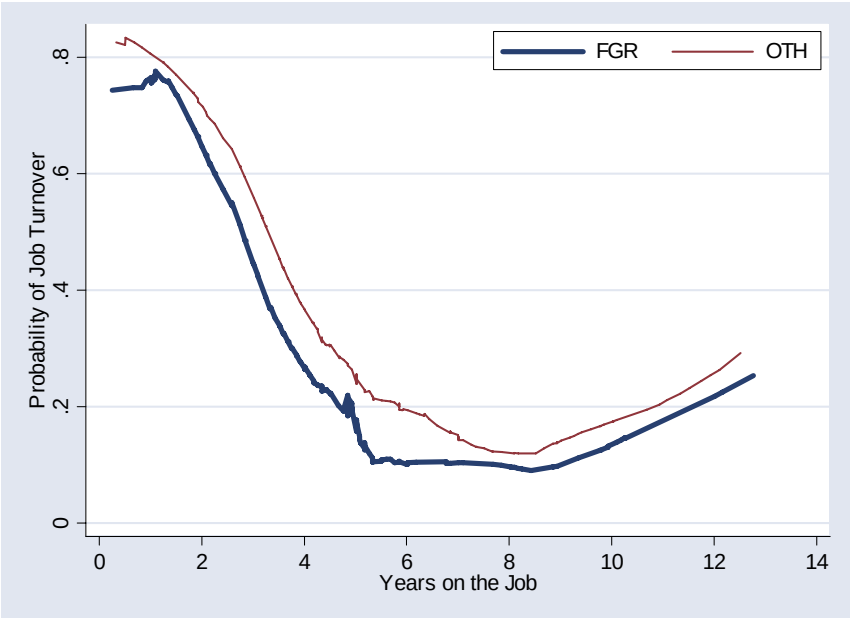

Figure 2-a Probability of Job Turnover: young workers

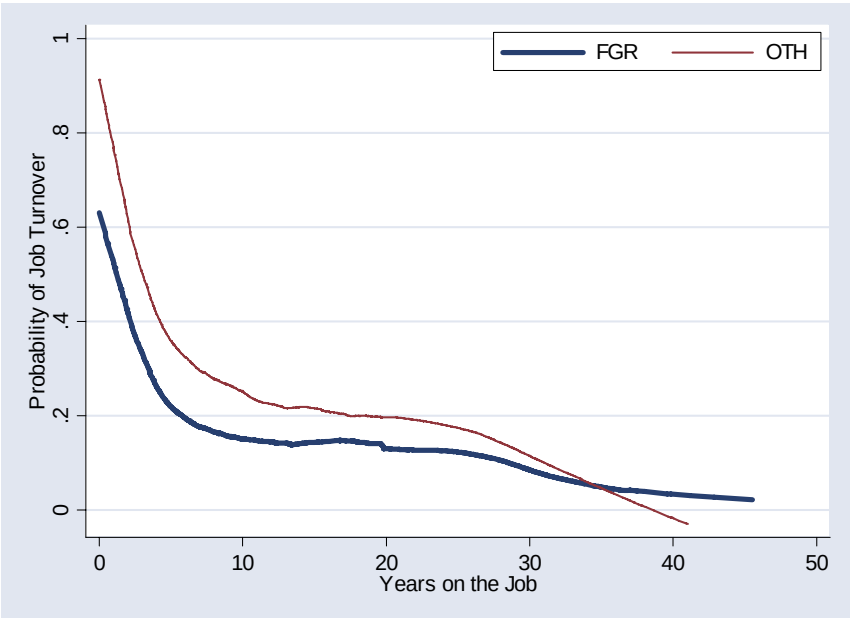

Figure 2-b Probability of Job Turnover over: Older workers

Source: calculation from CULS2.

The lower panel of Figure 2 indicates the transitional characteristics of job turnovers. The older workers in both regions have high probability to leave current job during the first years. The probability of job turnovers for workers is about 9 percent in other regions and around 6 percent in FGRs. In contrast to

the case in developed economies[7], older workers have higher probability to leave jobs during China's transition period. This embodies the transitional features of China's labor market where older workers are subject to employment shocks brought about by SOE restructuring and WTO accession adjustment.

Besides significant difference from developed markets, the two Chinese regions also show disparities. Workers in other regions are more likely to leave their jobs, so we see the thin line is above the thick one during most periods of their carriers. Combined with the description we made in other section of this report, one can conclude that workers in the two regions suffer differently from employment shocks, because FGRs perform better in job creation while the other regions experience bitter job destruction.

b)Determinants of Job Turnovers

After documenting the characteristics of job turnovers and the differences between the two regions, it is clear that overall pattern of job turnovers in China differs from that in developed labor markets despite the regional disparities. To further explicate the nature of job turnovers, we are going to estimate the following binary model to find out the determinants of job turnovers in FGRs and other regions.

$$TO_i = \alpha' \mathbf{X_i} + \beta' \mathbf{Z_i} + \gamma \mathbf{E_i} + \varepsilon_i$$

The dependent variable is whether individual *i* changes his/her job over the period from 2002 to 2005[8]. We think three types of explanatory variables affecting the decisions of job turnovers in urban labor markets: individual characteristics $\mathbf{X_i}$, household characteristics $\mathbf{Z_i}$, and job characteristics $\mathbf{E_i}$. We expect the former two types of variables, $\mathbf{X_i}$ and $\mathbf{Z_i}$, to reflect factors affecting labor supply, and the rest of the variables $\mathbf{E_i}$ to capture the demand side effects. To be concrete, the vector of $\mathbf{X_i}$ includes dummies of age group, gender, years of schooling, party membership, past working experience, and training. The vector of $\mathbf{Z_i}$ consists of household size, share of working family members, share of kids, share of elderly, and *dibao* transfers. The vector of $\mathbf{E_i}$ is composed of years on the job before January 2002, dummies of industries of the job, dummy of private ownership of the employer, dummy of state

[7] According to Mincer and Jovanovic (1981), in the first two years, the probability of older workers leaving their jobs is about 5 percent.

[8] CULS2 asks retrospect data back to 2002 for some selected variables including some on working history. This makes it possible to observe the effects of characteristics prior to 2002 on the job turnovers in subsequent years.

ownership of the employer, and dummy of self-employment. Linear probability model is applied to above equation. Table 7 presents the results of regressions for FGRs and other regions, and pooled regression.

Table 7 Linear Probability of Job Turnovers: FGRs vs Others

Variables	All	FGRs	Other
Age group 16~29	0.075 2.22	0.15 3.51	-0. 083 1.47
Age group 30~39	0.041 1.38	0.085 2.26	-0.071 1.47
Age group 40~49	-0.013 0.54	-0.01 0.30	-0.043 1.06
Years on the job	-0.0025 2.50	0.002 1.38	-0.01 6.19
Party membership in or before 2002 (1=yes)	-0.007 0.40	-0.044 1.80	0.028 1.09
Years of Schooling	-0.008 2.99	-0.005 1.34	-0.013 3.33
Sex (1=male)	-0.002 0.10	0.019 0.89	-0.03 1.20
Experience of involuntary unemployment before 2002	-0.061 1.60	0.081 2.04	-0.038 1.10
Household size in 2002	0.014 1.43	-0.004 0.26	0.029 2.12
Share of working family members in 2002	-0.061 1.60	-0.049 0.91	-0.02 0.34
Share of kids below 16 in 2002	-0.033 0.64	-0.014 0.18	-0.027 0.38
Share of families 60 and above in 2002	0.067 0.97	0.23 2.37	-0.11 1.31
Getting *dibao* transfer since 2002 (1=yes)	0.22 5.80	0.21 1.97	0.17 4.00
Trained (1=yes)	0.11 2.90	0.14 2.23	0.086 1.87
Job in private sectors (1=yes)	-0.025 1.35	0.024 0.99	-0.09 3.24
Job in state owned sectors (1=yes)	0.21 9.69	0.19 6.56	0.26 8.45
Self-employment (1=yes)	0.040 1.30	0.052 1.10	0.015 0.39
Job with contract (1= yes)	-0.09 4.26	-0.068 2.19	-0.080 2.80
Dummies of Industry	Yes	Yes	Yes
Adj R-squared	0.15	0.11	0.18
Obs	2778	1278	1500

Source: calculation from CULS2.

Individual Characteristics

We divide workers into four age groups: 16~29, 30~39, 40~49, and 50 and older. According to our previous discussions, young workers are more likely to change their jobs even without outside employment shocks happening. In Table 7, the regression results for FGRs comply with that observation. Compared to the oldest group, the two younger groups are more likely to change jobs and the youngest group has the highest probability of 0.14 in FGRs, while the signs of the three age variables in other regions are negative and even two of them are marginally significant.

As is discussed previously, the effects of education on job turnovers are mixed, especially when labor market shock is serious. Because employment shocks are severer in other regions, the effects of education on maintaining jobs dominate the effect on seeking job opportunities. In contrast, in FGRs the two effects are more equivalent so the coefficient is only marginally significant and the magnitude is smaller than that in other regions. In fast growing regions, workers with previous experiences of unemployment shocks tend to change jobs more frequently. In fact, this could be because workers enter informal sector after shocks and then increase the possibilities of turnovers in their following jobs.

Household Characteristics

Compared to individual characteristics, only a few household variables have effects on the household members' behaviors on job turnovers. For example, in other regions a person from big household tends to change his/her jobs more often while in FGRs it is more likely for a person from family with old people to leave his/her current job. In general, household variables play a limited role in job turnover in contemporary China, which implies that job turnover is either an individual decision or an involuntary outcome that is only weakly correlated with household characteristics.

Job Characteristics

Several job characteristics are taken into account here: duration of the job, job in state owned sector, job in private sectors, job with or without contract, and industries of the job. It is reasonable to believe that job characteristics are

primary determinants to one's decision of whether to change a job.

In other regions, the duration on the job has negative sign, which means more years on a job are helpful for one to keep the job. The sign on FGRs is positive but not statistically significant. This implies that the duration of job is more useful for workers to maintain their jobs.

In recent years, private sectors have been job creators while state owned sectors have lost enormous amount of jobs and have actually become job destroyers. Therefore, one who works in state owned sector is more likely to be confronted by involuntary job turnovers. The state ownership dummy for both FGRs and other regions have the same sign but the marginal probability of other regions is 7 percent higher than FGRs. In contrast, the role of private sector is two-faceted. On the one hand, labor absorbing in private sector tends to use labor market mechanism, but somewhat immature and unregulated. That often leads to more frequent job turnovers. On the other hand, a job in private sector serves to prevent unemployment shock from employer side and therefore private ownership helps reduce job turnover. It seems that the latter effect is prominent in other regions so that it exceeds the marketization effect and generates a negative sign of the private ownership variable. By contraries, the former effect might be bigger in FGRs and offset the other effects although the coefficient is not statistically significant.

When a person has a job with signed labor contract, he/she is less mobile. From the table one can see that such a variable has negative sign and similar marginal effect in both FGRs and other regions. As is believed by many people, signing a contract with employers serves an effective tool to protect workers' status of employment.

c)Brief Summary

The above discussion reveals two facts: (1) voluntary and involuntary forces coexist in job turnovers in China's labor market and the latter constitutes major motivation for job turnovers in other regions; (2) the pattern of job turnovers in FGRs is closer to what happening in a mature labor market, which indicates labor market is more developed in FGRs than in other regions.

4. Informalization of Labor Market

The Chinese economic reform has been market-oriented and thus it has been an equivalent process as marketization. Characterized by its early stage

and deregulation, labor market development is accompanied by informalization of employment. The informalization of labor market is mainly reflected by the fact that more and more people are employed in informal sectors, or employed as informal workers in formal sectors. In this section, we start with the definition of informal employment and go through a series of issues that we think as key components to understand the situations of informal employment by taking advantage of survey data on firms and households. We analyze the informalization of employment by comparing characteristics related to the issue between FGRs and other regions so as to draw relevant policy implications.

(1) Definition of Informal Employment

The existence and increase of the gaps between the total employment number and the employment number in units, as well as the total employment number and the employment number in private enterprises and self-employed business households indicate that labor statistics cannot reflect the actual number of total employment with various and complex economic activities in a timely manner. On the other hand, the gaps reflect the increased pressure for employment, the serious unemployment situation, the higher level of the growth of the labor market, and the expansion of employment outside the range of unit accounting that has formed the so-called "informal" employment[9]. The overall employment has increased in recent years and more and more workers are employed in new ways, and are actually employed more through the labor market.

The so-called informal employment in general refers to employment in informal sectors, which are usually regarded as the types of production units including self-employers, family enterprises and micro-enterprises. They do not have integrated and independent accounting, and cannot be clearly differentiated from family and other activities. The units of the informal sector do not have clear organization structures. Labor and capital, as the elements of production are seldom separated from each other, and the production line is very narrow. The laborers' relation is based on temporary employment, family members, or personal and social relationships, and it is not based on formal contract arrangement that has a formal guarantee. (International Labor Organization, 2001)

[9] In China, Ministry of Labor and Social Security prefers using the phrase "flexible employment" that actually means the same thing as the phrase "informal employment" does.

The informal employment in China's cities and towns is similar to the employment of informal sectors as defined by the international organization, but it is not exactly the same. In general, those types of employment that do not register their business or production, do not participate in social security, and have informal labor relations, can be regarded as informal employment. In general, employment that is not registered with "Labor Comprehensive Reporting System" and the Industrial and Business Administration can be considered informal employment. With a Chinese characteristic, employment in formal sectors but in an informal way is also informal employment in transition China.

Informal employment have the features such as low costs, dependency on market, and flexible ways of hiring and firing, etc, all of which is very suitable to create employment in the process of transformation of a dual economy. The data shows that the employment in informal sectors has been universally growing in the developing countries in Asia, Africa, and Latin America. From 1990 to 1994, 80 percent of the new jobs in Latin America and 93 percent of those in Africa were created by informal sectors. The current percentages of the employment in informal sectors of the total employment are 57.2 percent in Africa, 36.2 percent in Latin America, and 32.8 percent in the Asia-Pacific Region respectively (Xue, 2000).

Even the developed countries that practice market economy have to use the flexible economic modes of informal employment to cope with the problems such as the intensified competition of globalization and the increased uncertainty of enterprises. The trend has an impact on patterns of employment by reducing full-time jobs and permanent positions, and adopting patterns such as temporary work, contract jobs, freelance, and non-full time work, etc. This trend is related to the transformation of industries, and is especially shown in the regions concentrated with new industries such as "Silicon Valley". For instance, 27 percent to 40 percent of employment in Santa Clara County, California is temporary work. New positions are almost 100 percent this type of employment (Benner, 1996). In recent years, other governments also noticed about "temporary employment," and adopt the concept of the so-called "new flexible economy" along with related policies.

The employment number in work units in China's cities and towns has been gradually decreasing since 1990, while the employment number outside work units has been increasing as the economy grows. That is to say, employment in informal sectors has been increasing. In the period 1996 to 2001, the ratio between the employment number in informal sectors and work units increased from 1:4 to greater than 1:2. Therefore, from the perspective of using general statistical data to observe the employment situation in China, it is usually easy for people to underestimate the actual growth of employment.

Actually, the overall employment in China indeed increased, and only the conventional employment in cities and towns is reduced.

One task this report has to accomplish is to identify who are informal employees by combining the internationally accepted definition and the one with Chinese characteristics. According to Wu and Cai (2006), the following types of workers are categorized as informal:

(1) Hired workers without formal contract not listed as formal employee;

(2) Hourly-paid workers, domestic workers, dispatched workers (labor intermediate companies dispatch workers to enterprises based on contract between the companies and enterprises, which demand for the labor, and casual laborers;

(3) Community service workers without formal contract. In the survey, there is category called "community management and community service", in which there is distinct two types of jobs: community management staff and commonweal service workers in community. Though the community is claimed as self-governed organization by residents, it is actually a quasi-government body to execute autonomy of the grassroots' level of government. Therefore, community management staff serves as quasi-officials, and this position is considered respectable and competitive. This kind of staff usually possesses formal contract. In contract, the community commonweal service has been created for reemploying the laid-off and unemployed, paid under minimum wage line, a typically informal and not decent job;

(4) Workers hired on basis of hourly pay, daily pay, weekly pay, and uncertain pay (in terms of time and/or account);

(5) Paid helpers in the family business and self-employed business;

(6) Workers hired by individual business (*getihu*);

(7) Workers hired in formal units but identified as dispatched worker, hourly-based worker and/or casual worker;

(8) Workers engaged in agricultural sector are excluded in our consideration;

(9) Individual business (*getihu*) owners.

The last is a disputable category. According to ILO recommended criteria, mini-business employing fewer than 10 helpers is considered as typical informal sector, thus its owners are included in the category of informal employment, regardless whether they register or not. By the regulation in China, individual business (*getihu*) is allowed to hire only 7 or fewer helpers, and thus fits the definition by ILO for mini-business or self-employment. However, there is no practical difference between individual business and private enterprises in China's reality. That is, when employees of a registered individual business exceed the criteria of 7 persons, it usually doesn't necessarily change its registration identity as a private enterprise.

Since some of the individual business can be quite formal, Wu and Cai (2006) use three calibrations to estimate informal employment in urban China, using micro survey data in 66 cities conducted by Ministry of Labor and Social Security in 2002. The first calibration is: workers of 1-8 types were considered as informal employment. The second is: all the 1-9 types of workers were considered as informal employment. The third is: workers considered as informal employment by the second calibration plus some part-time workers. According to their estimation by three calibrations, the sizes of informal employment in urban China in 2002 were 107.65 million, 120.57 million and 124.06 million, respectively.

Zhu and Yao (2006) have their opinions on flexible employment. They use two methods to estimate size of flexible employment in urban China, using aggregated data from *China Statistical Yearbook* and *China Labor Statistical Yearbook*. The first method is: the following types of workers are categorized as formal employment: workers from government agencies, organizations and institutions, state-owned and collective-owned enterprises, joint-venture enterprises, units with funds from Hong Kong, Macao and Taiwan, foreign funded units and part of workers from private enterprises in urban areas. Then flexible employment is equal to total urban employment minus formal employment. They take this as the upper limit of the flexible employment. According to their estimation, the size of the upper limit of the flexible employment has steadily and rapidly increased from 51.708 million to 155.927 million from 1997 to 2004.

The second method Zhu and Yao used is: the following types of workers are categorized as flexible employment: part of workers from private enterprises, self-employed individuals and migrants in urban areas. They take this as the lower limit of the flexible employment. According to their estimation, the size of the lower limit of the flexible employment has steadily and rapidly increased from 56.128 million to 116.097 million from 1997 to 2004.

National Bureau of Statistics also estimates size of flexible employment in urban areas (NBS, 2005). They take the following types of workers as flexible employment: self-employed individuals, people who help their family members to undertake production and management and other flexible employment which includes part-time workers and seasonal workers, etc. According to estimation of NBS, the total number of flexible employment is 47 million in 2003.

Considering that the nature of informal employment, in this paper we take whether workers sign a contract with their employer as the criterion of distinguishing informal and formal employment. According to the Labor Act issued in 1994, employment contract is the most important document to set up the labor relations and to specify rights and obligations of both sides. Although contract is not a sufficient condition to guarantee employees' right, it still plays

active role in large extent. Since the large scale laid-off and unemployment of SOEs started in 1998 accompanied by radical restructuring, we define the following categories of people as informal workers: a blue collar worker starting a job since 1998 without contract; working in private sector without contract; the self-employed. What follows we will estimate the size of informal employment in urban labor market.

(2) Missing Workers As Informalization of Labor Market

Both surveyed and estimated unemployment rates documented by Cai (2004) are lower than what most researchers and observers expected, because those people, who had experienced unemployment and later quit from labor market, or who are reemployed but their new jobs are informal and not secure, are not counted as unemployed. 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 3, 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.

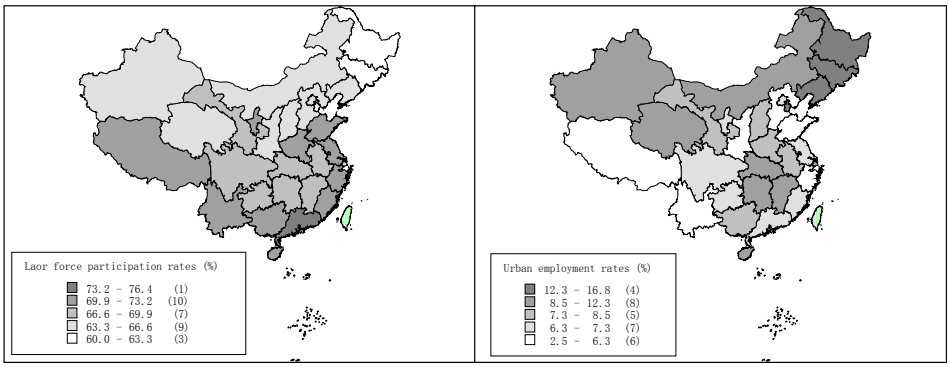

Figure 3 Comparison of Labor Market Situation by Province
Source: Authors' calculation from 1 percent sampling of 2000 census long form

The increase in unemployment rate and decrease in labor participation, especially a superficial bird-eye observation over China's labor market, 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 shown in Table 8. 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.

Table 8 Changes in Employment Structure since the Reform

	SOU	COU	SHC	JOU	LLC	SHCL	PE	HMT	FIU	IND	RDL	Total
1990	103.5	35.5	0.0	1.0	0.0	0.0	0.6	0.0	0.6	6.1	23.1	170.4
1991	106.6	36.3	0.0	0.5	0.0	0.0	0.7	0.7	1.0	6.9	22.0	174.7
1992	108.9	36.2	0.0	0.6	0.0	0.0	1.0	0.8	1.4	7.4	22.4	178.6
1993	109.2	33.9	0.0	0.7	0.0	1.6	1.9	1.6	1.3	9.3	23.2	182.6
1994	112.1	32.9	0.0	0.5	0.0	2.9	3.3	2.1	2.0	12.3	18.5	186.5
1995	112.6	31.5	0.0	0.5	0.0	3.2	4.9	2.7	2.4	15.6	17.0	190.4
1996	112.4	30.2	0.0	0.5	0.0	3.6	6.2	2.7	2.8	17.1	23.8	199.2
1997	110.4	28.8	0.0	0.4	0.0	4.7	7.5	2.8	3.0	19.2	30.9	207.8
1998	90.6	19.6	1.4	0.5	4.8	4.1	9.7	2.9	2.9	22.6	57.0	216.2
1999	85.7	17.1	1.4	0.5	6.0	4.2	10.5	3.1	3.1	24.1	68.4	224.1
2000	81.0	15.0	1.6	0.4	6.9	4.6	12.7	3.1	3.3	21.4	81.6	231.5
2001	76.4	12.9	1.5	0.4	8.4	4.8	15.3	3.3	3.5	21.3	91.6	239.4
2002	71.6	11.2	1.6	0.5	10.8	5.4	20.0	3.7	3.9	22.7	96.4	247.8
2003	68.8	10.0	1.7	0.4	12.6	5.9	25.5	4.1	4.5	23.8	99.1	256.4
2004	67.1	9.0	1.9	0.4	14.4	6.3	29.9	4.7	5.6	25.2	100.2	264.8

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, 2005

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, many enterprises that had much 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 labor survey based on framework of 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 numbers of urban employment collected from SSPC and the smaller number of employment from CLSRS results in a missing employment (Cai and Wang, 2004). 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.

(3) Size and Component of Informal Employment

The informalization of labor market is reflected by the increasing size of informal employment. As we know from the last two sections, only relying on the published labor statistics, one cannot find exact number of informal employment and the way to estimate the size is deriving the size according to some other indicators. In fact, the discrepancy between total employment and aggregated unit employment is regarded as size of informal employment. Based on household survey data, we may estimate the size of informal employment in an explicit way.

Table 9 displays the size of informal employment estimated from two rounds of CULS data. As we sample migration labor and local residents separately, we report the estimated size of informal employment for migrants and local residents while the former is rarely taken into account by official urban labor statistics.

Table 9 Size and Components of Informal Employment（%）

	FGRs		Other		All	
	local	Migr	Local	Migr	Local	Migr
CULS1						
Size of informal employment	14.5	72.1	21.4	72.8	**18.5**	**72.5**
% of self-empt	67	73	64	63	65	73
% of unregistered work	33	27	36	37	35	27
CULS2						
Size of informal employment	25.7	73.9	38.2	92.1	**32.6**	**84.3**
% of self-empt	39	62	35	73	37	69
% of unregistered work	61	38	65	27	63	31

Source: calculation from CULS2.

The results from household survey data show consistent trend of increasing size of informal employment. Under our definition, there are 18.5 percent of local residents working in informal sector in 2001 and the number went up to 32.6 percent in 2005. The same trend is found in the sample of migration labor. Compared to some other studies, we think our estimation based on urban household survey is reasonable.

It is not surprising that most of migrants are employed in informal sector. Although this is a common sense and widely accepted, there are few studies that give a detailed estimation of informal employment in the group of people. It is worthy to note that our estimation on the size of informal employment of migration labor is helpful to deduce the actual proportion of informal employment in total employment. As is discussed elsewhere, migrants are

seldom included in statistics of work unit employment. Even the labor force survey conducted by NBS that is the source of total employment and claims the inclusion of migration labor is taken upon as insufficient inclusion of migrants. So the estimated number according to the discrepancy between total employment and its breakdown also takes the risk of underestimating the size of informal employment.

As far as the components of informal employment, in 2001 self-employment dominated unregistered work both for migrants and for local residents. But things changed in 2005 and there is significant difference between migration labor and local residents. The share of self-employment decreased dramatically from 65 percent to 37 percent. Unregistered work is accepted by more and more urban residents.

(4) Characteristics of Informal Work

As for characteristics of informal work, several comparisons are interesting here. First of all, we want to know if characteristics in fast growing regions differ from that in other regions. Secondly, the difference between informal sector and formal sector needs to be concerned about. Thirdly, we would like to emphasize the comparison between migrants and local residents. Finally, since we have two rounds of household survey data collected in different years, it is good to do some comparisons at time dimension so as to see the trends of informalization of labor market. To those regards, working intensity, and earnings of formal and informal works by residence and by region are calculated and presented in Table 10 and Table 11. What follows we discuss some of the issues resulted from the data processing.

Table 10 Characteristics of Informal and Formal Work: CULS1

	FGR		Other		All	
	local	mig	local	mig	local	mig
Informal work						
Working days per week	6.3	6.8	6.5	6.9	6.4	6.8
Working hours per day	9.2	10.8	9.4	10.9	9.3	10.8
Monthly earning (yuan)	1455	1246	730	833	968	991
Formal work						
Working days per week	5.1	6.2	5.2	6.5	5.3	6.4
Working hours per day	8.2	9.2	8.1	9.7	8.3	9.5
Monthly earning (yuan)	1222	899	826	696	1001	776

Table 11 Characteristics of Informal and Formal Work: CULS2

	FGR		Other		All	
	local	Mig	local	mig	local	mig
Informal work						
Social protection: proportion with the following social security (%)						
Pension	56.8	3.1	53.8	1.52	54.8	2.1
Unemployment insurance	13.6	0.9	12.1	0.16	12.6	0.4
Accident Insurance	8.6	2.5	4.6	0.4	6.0	1.2
Health Insurance	43.5	2.4	26.8	0.7	32.6	1.3
Working days per week	5.9	6.7	6.2	6.9	6.0	6.8
Working hours per day	8.8	10.7	9.0	10.6	8.9	10.6
Monthly earning (yuan)	1197	1300	702	790	1094	976
Formal work						
Social protection: proportion with the following social security (%)						
Pension	84.4	38.2	79.9	10.0	82.1	29.0
Unemployment insurance	36.1	24.1	43.1	4.6	39.7	17.8
Accident Insurance	35.6	42.4	22.8	9.6	29.1	31.7
Health Insurance	72.2	40.2	70.6	7.9	71.4	29.7
Working days per week	5.1	5.9	5.5	6.2	5.3	6.0
Working hours per day	8.2	8.7	8.2	8.8	8.2	8.7
Monthly earning (yuan)	1763	1422	1020	883	1387	1247

Note: * the codes for industries are: 3-manufacturing; 7-transportation, shipping, and warehousing; 9- wholesale, retail trade, and catering service; 12-social service; 16-education
** For migration labor, only rural to urban migrants are included.

Earnings

Since workers in informal and formal sectors, with or without local *hukou* identity, have different working intensity, we calculated hourly earnings as a comparable variable between groups. Figure 4 and Figure 5 display the hourly earnings of local residents and migrants both in FGRs and in other regions using data from CULS1 and CULS2 respectively. Several features revealed in the two figures will help us to better understand the implications of labor market informalization characterizing the Chinese transition from an administrative employment system to a labor market.

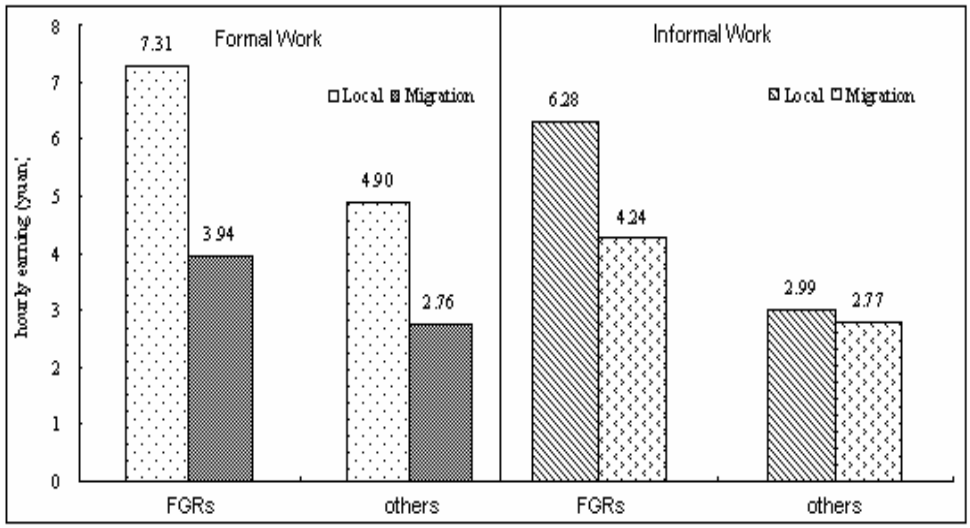

Figure 4 Hourly Earnings of Local Residents and Migrants (CULS1)

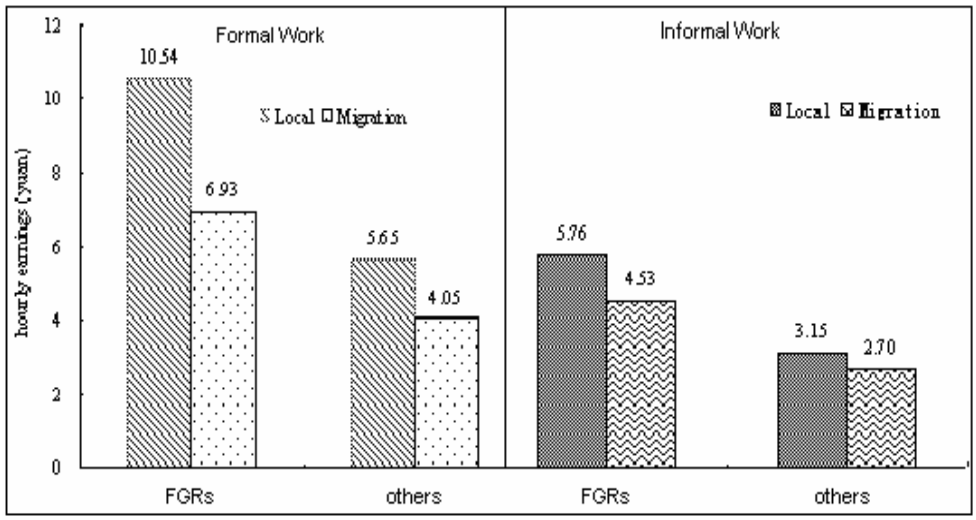

Figure 5 Hourly Earnings of Local Residents and Migrants (CULS2)

First of all, workers in formal sectors make higher hourly earnings except for the migration group in CULS1. In each figure, histograms in left panel are higher than their corresponding right-handed counterparts. Although the human capital endowment of informal workers is lower than those in formal sector, which could be an important determinant of earning, we can still hold that the relatively low earnings and the vulnerability of work for informal workers are significant features of the informalization phenomenon. In 2001, there was no

major difference in hourly earnings between migrant workers engaged in formal and informal sectors, the situation changed in 2005, partly because the effects of government implemented policies favoring migrants can only reach those employing in formal sectors. It is widely believed that there exists labor market discrimination against migrants in urban areas. So migrants who even work in formal sector could not earn higher income than their cousins in informal sectors in 2001. But things changed in 2005, which implies that environment for migrants has been improved, but it is true only for formally employed migrants.

Secondly, no matter what sectors they work in and what *hukou* positions they hold, workers in FGRs earned higher hourly income than their counterparts in other regions did. This is not surprising and displays the common regional disparities in incomes. If our samples are somewhat representative at city level, one may find the trend of increased regional disparities as is well documented elsewhere.

For comparisons between local residents and migrant laborers, we look at the earning ratio of these two groups of people and take migrant groups as 1. In 2001, for FGRs and other regions the ratios were 1.86 and 1.78 in formal sector while they were 1.48 and 1.08 in informal sector, respectively. If we did the same calculation for 2005, the ratios were 1.52 and 1.40 in formal sector while they were 1.27 and 1.17 in informal sector, respectively. There is seemingly a fact that less discrimination against migrant workers is found in informal sector.

Finally, some changes over time in terms of earnings disparities are worth of noticing: (1) disparities between local residents and migrants are getting smaller, (2) disparities between formal sector and informal sector increased, and (3) disparities between FGRs and other regions increased. What follows we will explain why these changes happened and how they are related to the changing causes and natures of informal employment over time.

Blinder-Oaxaca Decomposition

Given the fact that migrant workers comprise major component of informal labor force in urban sectors, it is important to know how they become informalized while entering urban labor market. Based on the descriptive statistics above, we are aware that wage differentials exist between migrants and local residents. Since factors contributing to wage differentials are multifaceted, we have to control for other effects so as to get the net effects of discrimination from overall wage differentials. To further look into the causes

of wage differentials between migrant and local workers, we apply a traditional Blinder-Oaxaca decomposition to CULS2 data. To eliminate the potential selection bias, we use household composition variables as selection variables because we believe that those household variables affect individuals' decisions on labor market participation and employment but not wage. Our main interest here is to observe how much wage differentials come from the discrimination against migrants and the relative sizes of the discrimination in FGRs and other regions. As is shown in Table 12, after controlling for the wage determinants, it comes to our knowledge that discrimination accounts for 9.6 percent of wage differentials between migrants and local residents in FGRs and 44.8 percent in other regions. It is obvious that FGRs have less discrimination against migrants, which implies labor market in FGRs is more competitive comparing to other regions.

Table 12 Blinder-Oaxaca Wage Decomposition with Heckman Selection: CULS2

	FGRs		Other	
	Local	**Migrants**	**Local**	**Migrants**
Wage Equation: dependent variable=log of hourly earnings				
Years of schooling	0.095 (15.60)	0.062 (6.51)	0.077 (13.92)	0.05 (7.89)
Age	-0.0048 (2.85)	-0.0014 (0.43)	-0.0049 (2.87)	-0.001 (0.48)
Sex (1= male)	0.039 (0.87)	0.12 (1.54)	0.12 (2.93)	0.096 (2.07)
Log of years on the job	0.14 (10.78)	0.08 (3.29)	0.11 (9.81)	0.039 (2.46)
Log of height	2.78 (5.84)	1.07 (1.21)	1.07 (2.30)	1.45 (2.56)
Party membership (1=yes)	-0.049 (1.19)	-0.11 (0.53)	0.11 (2.71)	-0.15 (1.09)
Slef-employment (1=yes)	-0.19 (3.11)	0.14 (2.19)	-0.16 (3.30)	-0.16 (3.55)
Self-reported health status	-0.068 (3.57)	0.02 (0.53)	-0.47 (2.77)	-0.079 (3.62)
Negative impacts of deform or chronic diseases on work	-0.057 (0.91)	0.25 (1.93)	-0.031 (0.53)	-0.01 (0.15)
Working in public sector (1=yes)	0.25 (2.72)	-0.036 (0.38)	0.25 (6.05)	0.065 (0.94)
Working in private sector (1=yes)	0.23 (4.13)	0.28 (3.15)	0.23 (4.97)	0.29 (4.41)
Heckman Selection				

Household size	-0.027	-0.23	-0.01	-0.20
	(1.04)	(5.97)	(0.69)	(7.26)
Fraction of member above 60	-1.81	-0.035	-1.66	-0.36
	(14.35)	(0.06)	(17.43)	(1.43)
Fraction of member below 16	-0.78	-2.22	-0.22	-1.20
	(4.61)	(11.42)	(1.60)	(8.50)
ρ	-0.37	0.033	-0.078	0.81
	[0.13]	[0.15]	[0.14]	[0.030]
δ	0.57	0.90	0.58	0.85
	[0.02]	[0.018]	[0.011]	[0.021]
λ	-0.21	0.030	-0.045	0.69
	[0.078]	[0.13]	[0.08]	[0.039]
Summary of Decomposition Results (as %)				
Due to endowments (E)	58.9		34.8	
Due to coefficients (C)	830.5		-148.1	
Shift coefficient (U)	-824.2		176.4	
Endowments as % total: E/(E+C+U)	90.4		55.2	
Discrimination as % total: (C+U)/ (E+C+U)	**9.6**		**44.8**	

Absolute value of t value in parenthesis, standard errors in bracket.

Working Intensity

Working longer hours is another prominent feature of informal work. In the same way we did just now about wage differentials, we next compare work intensity between formal and informal sectors with extension to regional and residential dimensions. In both rounds of the survey, questions on working hours are asked. According to the surveys, we can come up with several observations: (1) informal workers tend to work more hours comparing to workers in formal sectors, (2) migrant workers work more hours than local workers, and (3) workers in FGRs work much less than their counterparts in other regions.

Over time, workers tend to work fewer hours as is indicated by the differences of working hours between cases of CULS1 and CULS2, with one exception that formal workers in other regions work a little bit longer after the interval between two surveys. This can be indicative to that behaviors of labor markets tend to be more rational although the size of informal employment increased over time.

Social Protection

Two features relating to issues of social protection emerge from data processing. Workers with formal employment are much better protected than

workers with informal employment. According to CULS2, 82.1 percent local workers and 29 percent migrant laborers joined pension program, whereas the numbers are 54.8 percent and 2.1 percent respectively for informal workers. It is easy to find that local workers are better protected than migrant laborers. For example, even among those local workers who work in informal sectors, more than one half have pension and near one third have health insurance. Those two figures are much higher than their migrant counterparts. This explores that fact that while the employment shocks resulted in by SOE restructuring deprived many SOE employees' formal jobs, they still more or less benefit from social security programs and other government protection. However, even within the informal sector, huge heterogeneity between local workers and migrant laborers exists.

(5) Characteristics of Workers Employed Informally

As mentioned in above section, we are also interested in the characteristics of workers employed informally. In Tables 13 and 14, demographic characteristics, human capital, and working history are presented by residence and by region for the both rounds of survey.

Table 13 Characteristics of workers employed informally: CULS1

	FGR		Other		All	
	local	**mig**	**local**	**mig**	**local**	**mig**
Informal workers						
Age	40.1	31.3	40.6	30.1	40.4	30.6
Sex (% male)	60.5	61.7	55.2	59.9	56.9	60.6
Health status	6.42	6.10	6.42	6.01	6.42	6.04
Years of Schooling	9.3	7.76	9.9	8.10	9.7	7.97
% Party membership	4.4	1.79	7.7	1.85	6.6	1.83
Experience of Laid-off, registered unemployment, or involuntary retirement (%)	20.2		40.7		33.9	
Formal workers						
Age	41.2	30.5	40.7	28.5	40.9	29.3
Sex (% male)	57.1	62.8	58.2	72.2	57.7	68.5
Health status	6.40	6.19	6.60	6.11	6.51	6.14
Years of Schooling	11.3	8.33	11.8	8.69	11.6	8.55
% Party membership	21.5	2.16	25.5	2.53	23.7	2.4
Experience of Laid-off, registered unemployment, or involuntary retirement (%)	15.2		11.2		13.0	

Table 14 Characteristics of workers employed informally: CULS2

	FGR		Other		All	
	local	**mig**	**local**	**mig**	**local**	**Mig**
Informal workers						
Age	41.7	33.8	40.0	34.4	40.6	34.2
Sex (% male)	52.8	56.0	52.3	56.3	52.5	56.2
Health status	6.18	6.48	5.86	6.41	5.97	6.44
% Party Membership	8.8	1.80	7.49	1.20	7.95	1.42
Years of Schooling	10.9	8.45	11.1	8.27	11.0	8.34
Training (%)	2.8	3.61	6.21	4.33	5.02	4.07
with Experience of Laid-off, registered unemployment, or involuntary retirement	45. 9		55.6		52.2	
Formal workers						
Age	41.7	31.6	39.9	32.0	40.8	31.7
Sex (% male)	56.2	56.6	60.9	63.3	58. 6	58.8
Health status	6.26	6.58	6.16	6.41	6.21	6.52
Party Membership	18.7	2.61	23.6	1.25	21.2	2.17
Years of Schooling	12.30	9.67	12.43	9.75	12.37	9.70
Training (%)	5.54	7.23	6.97	10.83	6.26	8.40
Experience of Laid-off, registered unemployment, or involuntary retirement (%)	15.4		19.3		17.4	

Note: for migration labor, only rural to urban migrants are included.

Basic Individual Characteristics

From both surveys we can find migrant laborers are younger than local workers but there is no significant difference between informal and formal sectors and between FGRs and other regions. For most indicators, male workers have advantages over female because the former have higher labor market participation rates or migration probability. Laborers with fewer years of schooling tend to work in informal sector and local workers have higher educational attainment. No significant difference of health status among groups is found, which we take as a selective process – only healthy workers keep staying in labor market.

Experiences Suffering from Shocks

Because we only include rural to urban migration into the sample, it is not

applicable to ask their past experience on labor market shocks and only workers from urban areas are concerned here. Informal workers are more likely to experience involuntary job separation in various forms. On an average, about one third of informal workers in 2001 and more than one half of informal workers in 2005 experienced employment shocks, whereas workers in formal sector have much lower proportion of suffering employment shocks. In general, the proportion of workers with shock experience in FGRs is lower than that in other regions, showing an evidence that the fast growing regions have more stable labor market due to more job opportunities generated by economic boom. In a word, what we observe here indicates that employment shock on labor market is main contributor to the formation of informal employment.

(6) Links between Informal and Formal Sectors

a) Why Staying in Informal Sector

A linear probability model is regressed to see what determines a worker to enter informal sector. As we see in Table 15, young people tend to work informally but the relationship is not linear. Male laborers are more likely to work in formal sectors in other regions but not in FGRs. For both regions, workers with past experience of involuntary unemployment have more than 30 percent probability to work in informal sectors if other things are equal. Better political status helps one to work in formal sector, but statistically it only has marginal significance in FGRs, where labor market is proved to be more competitive.

Table 15 Linear Probability of Determination of Entrance to Informal Sector

1=informal employment, 0=formal	All	FGRs	Other
Age	-0.04	-0.03	-0.06
	7.60	3.80	7.30
Age square	0.00	0.00	0.00
	6.91	3.27	6.86
Sex (1=male)	-0.04	-0.02	-0.05
	2.69	1.01	2.62
Experience of involuntary unemployment	0.34	0.32	0.37
	19.97	12.18	16.04
Party membership (1=yes)	-0.09	-0.05	-0.12
	4.37	1.75	4.27
Years of Schooling	-0.03	-0.03	-0.02
	9.83	7.39	6.36

Self-reported health status	-0.02	-0.02	-0.02
	2.38	1.53	1.78
Household size in 2002	-0.01	-0.01	-0.01
	0.92	0.98	0.46
Share of kids below 16 in household	0.10	0.17	0.07
	1.62	1.80	0.77
Share of labor in household	-0.02	0.00	-0.05
	0.39	0.04	0.54
Getting dibao transfer since 2002 (1=yes)	0.20	0.05	0.23
	6.83	0.69	6.94
Private transfer (1=yes)	0.05	0.06	0.03
	2.92	2.76	1.11
Trained (1=yes)	-0.10	-0.15	-0.06
	3.10	3.04	1.56
FGRs (1=yes)	-0.08		
	5.14		
Adj R-squared	0.22	0.15	0.24
Obs	3355	1502	1853

Source: calculation from CULS2.

Less educated people is more likely to work informally and one additional year of schooling will reduce the probability to enter informal sector by about 3 percent in FGRs and 2 percent in other regions. Training programs also help one to work in formal sector. In FGRs, a person who is getting involved in a training program has about 15 percent bigger probability to enter formal sector. In the other regions, the number is 6 percent but it is not very significant statistically. The coefficients of human capital variables in both regions not only reflect the fact that labor market in FGRs is more developed but also imply that improving education and skills is an effective way to help workers enter formal sector. On contrary, if policy makers try to formalize the labor market, but by utilizing the measures that regulate labor market by intervening employers' decisions, labor market can only become more rigid and things go contrary to its wishes.

b) How Workers Move between Informal and Formal Sectors

As we discussed above in this report, the general trend of employment in urban labor markets has been informalized in recent years. Our survey data show that the informal employment accounted for 18.5 percent total employment in 2001 and the number increased up to 32.6 percent in 2005. Retrospect data in CULS2 also approved this trend: 26 percent workers were employed in informal sector in 2002. Figure 6 shows the links and mobility

between formal and informal sectors by job turnovers[10]. Several characteristics presented by the figure are worth of noticing.

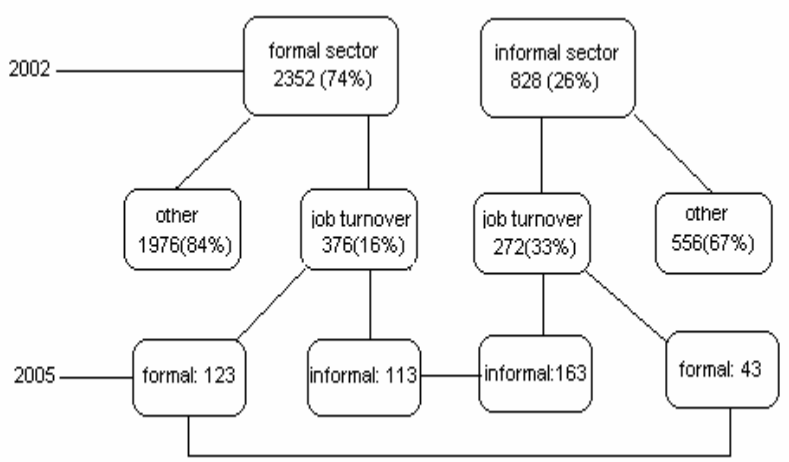

Figure 6 Links and Mobility between Formal and Informal Sectors
Source: calculation from CULS2.

First of all, workers in informal sector are more mobile than those in formal sectors. According to CULS2 data, in 2002, 3180 sampled individuals worked in both sectors and the informal sector accounted for 26 percent of total working people. Over the period from 2002 to 2005, one third of informal workers have job turnovers while the ratio of job turnover is about 16 percent in formal sector. Based on our dataset, we may find that high mobility is one of the features of informal work, though more workers move from formal sectors into informal sectors than the other way round.

(7) Impacts of Labor Market Informalization

The general trend of informalization has significant impacts on labor market. We mainly explore the effects of informal employment on income generation and on the competitiveness.

a) Income Determination and Poverty

[10] In the figure, the box "other" includes those who did not experience job turnovers and retirement over the three-year periods, and those whose information was missing in the questionnaires. The definition of job turnovers is kept the same as the analysis in Section 3.

When analyzing the earnings in both sectors, we find that workers in informal sector make less money than those in formal sectors. In fact, the role of informal employment on income generation has been changed. During the early stage of economic restructuring, labor market shocks were severe and a mass of workers formerly employed in formal sectors lost their jobs and some of them entered the informal sector. So there were three groups of people by labor market status: unemployed persons, informal workers, and formal workers. Compared to the unemployed due to labor market shocks, working in informal sector is still a means to generate income and has a positive effect on poverty reduction. When the unemployment rate goes down, the income distribution curve will shift to right, as the left part of Figure 7 shows, the effect of informal employment on income generation will not be as obvious as before. Of course, because of the relatively fixed poverty line that is determined by subsistence expenditure, earnings from informal work are still helpful for poverty reduction, although informal employment is no longer a good income generator (Cai, et. al, 2006).

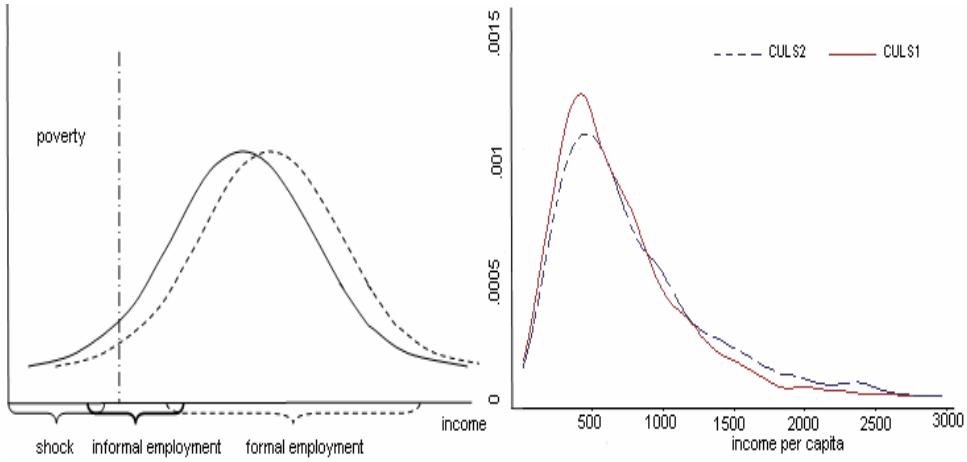

Figure 7 Impacts of Informal Employment on Income and Poverty

In the right part of Figure 7, we do see the shift of income distribution curve if we compare the data from two rounds of household survey. And we will see the issue further by estimating income determination equation as what follows.

$$\ln y_i = \alpha_0 + \alpha_1 r\inf m_i + \alpha_2 rshock_i + \alpha_3 rshocke_i + \alpha_4 rmlab_i + \alpha_5 rflab_i + \alpha_6 mnew_1 + \alpha_7 fnew_i + \alpha_8 mold_i + \alpha_9 fold_i + \alpha_{10} headu_i + \alpha_{11} sedu_i + d^c + \varepsilon_i$$

Where the left hand side variable, log income per capita, is determined by

the ratio of family members employed informally, the ratio of family members who are involuntarily unemployed, the ratio of family members who had past experience of involuntary unemployment, ratio of male labor, ratio of female labor, ratio of new entrants to labor market by male and female, ratio of old people by male and female, years of schooling of household head and spouse, and city dummies. Table 16 presents the regression results.

Table 16 Income Determination: CULS1 and CULS2

	CULS1		CULS2	
	Coeff	t	Coeff	t
% of informal employment	577.43	2.37	28.31	0.42
% of shock	-162.03	-2.75	-728.32	-9.63
% of shock experience	-415.51	-6.63	-517.63	-8.42
% of male labor	706.69	4.80	567.06	4.72
% of female labor	790.03	7.36	558.42	4.75
% of person age 16-20, male	-912.84	-7.20	-545.27	-3.26
% of person age 16-20, female	-898.25	-7.26	-773.38	-5.39
% of old person above 64, male	649.78	4.91	532.50	3.85
% of old person above 64,female	533.88	4.27	431.62	3.02
years of schooling of spouse	9.04	2.76	8.38	2.17
years of schooling of hh head	22.48	6.13	42.23	8.58
household size	-66.97	-4.91	-84.13	-5.37
City dummies	Yes	Yes	Yes	Yes
R2	0.24		0.34	
No. of Obs	3490		2478	

The effect we care about the most here is the change of the coefficients of informal employment from first to second rounds of survey. We found that more family members working in informal sectors are helpful to increase household income per capita in 2001. The effect is not statistically significant anymore in 2005, although sign of the variable is still positive. In addition, the magnitude of the coefficient decreased dramatically. The implication is that holding other things constant, informal employment is no longer an effective income generator, though it was during the period with serious employment shock.

b) Competitiveness

One obvious result that prevalence of informal employment certainly generate is it reduces the coverage of social security to a great extent. For instance, from 1990 to 2002, the proportion of retirees who joined the basic pension program increased from 40.6 percent to 84.1 percent, but the proportion of urban employees who joined the program only increased from 30.5 percent to 44.9 percent. The reason why the coverage of basic pension program among the employees did not increase is that the increased proportion of informal workers who lack access to social security system. Although the flexibility of informal employment has promoted employment which provides more effective security than the social security system does, the lack of access to social security of the informal laborers has to be solved in the future, otherwise the social burdens will greatly increase.

Furthermore, although migrant laborers, who do not have residence registration in cities, might earn higher incomes comparing to what they earn before their migration, the employment stability, working conditions and social protection for them are severely inadequate. This is especially true since migrant workers' jobs are usually dangerous, dirty and physically demanding, and their health and safety are less guaranteed. This has caused much harm and many labor disputes. The labor laws and other regulations about labor protection have not been effectively implemented on informal employment. For instance, according to the calculation of the data from the fifth population census, comparing to local urban workers, the proportion migrant laborers in urban labor market who work 6 days a week is two times higher, and the proportion of migrant laborers who work 7 days a week is 58 percent higher.

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.

5. Policy Recommendations

In this report, relying on the empirical analysis on firm level data and household level data, we focus on two important issues emerging recently. First of all, we conduct the comparisons of labor market developments between fast growing regions and other regions. Second, we discuss the new trend of informalization in China's labor market. Some policy recommendations can be drawn from the empirical analysis in this report.

Compared to other regions, FGRs have well performed in creating employment opportunities no matter how we measure the performances at household level or at firm level. To great extent, this comes from a better development of labor market in the regions. The implication is that, for regions with less developed labor market, promoting an effective labor market is a good way to achieve the goal of increasing job opportunities. Based on the studies in this report, policies facilitating job creation and human resource utilization in the long run should be implemented, such as increasing labor market flexibility, creating favorable environment for the development of small enterprises, granting more autonomy to SOEs in decision-making in hiring and firing, and delivering incentives for investment in education and training.

In recent years informalization of employment became significant phenomenon facing China's labor market development. In this paper, we clarified the definitions and statistics of informal employment and described in details the characteristics of informal sector, links between informal and formal sectors, and the impacts of informalization. Several findings here are worth of noticing and are implicative.

Marketization and informalization are simultaneous and interactive at the early stage of labor market development and during economic transition. Bearing that in mind, policy-makers have to realize the positive side of informal employment in an appropriate way. Even in an informal way, the wage formation and employment determination in informal sector follow a basic market principle. In practice, the experience of dealing with issues of informal sector can be helpful to introduce market force into the current employment mechanism. Therefore, while regulating the labor market, the positive effects generated by informal sector on job creation and poverty reduction must be

taken into account. Otherwise, if the only goal of well-regulated and formalized market is pursued, China will miss chances to increase employment and make use of rich human resources. When comparing FGRs with other regions, we may find that labor market in FGRs is more formal and more developed, which implies that in the other regions the labor market could be formalized in a marketized way. In other words, informalizaiton indeed serves as a process of transition and development of labor market.

Since migrant labors mostly work informally in urban areas, they actually constitute the major part of the neglected group missing in labor statistics. This implies that the actual size of informal employment is underestimated even the discrepancy between total employment and its disaggregating is considered. In fact, the underestimated size of informal employment is not a good basis for policy-making and policy implementation. Only not long ago, policy makers and the pubic started keeping eyes on the welfare, protection, and social issues relating to the informal employment. In fact, if we realize the heterogeneity between the two groups in informal sectors – urban workers and rural-to-urban migrants, we may conclude that the former who experienced employment shocks is protected pretty well although they work in a informal way. To the contrary, a more urgent and essential task for policy-making is to provide better protection to migrant labors since they are excluded from social security system and even from current labor statistics. The job informality and residence registration should not be an excuse for ignoring their demand for public services and social protection.

As labor market develops, the role of informal employment has been modified over time. From the aspect of income generation, informal employment had positive effects on enhancing incomes when the labor market shocks were serious but the effects are not significant anymore. Given the inherent shortcoming of informal employment in job security, pay, and supervision, the increasingly expansion of labor market informalization raises the challenge to labor market regulating. Apart from direct regulations on labor market aiming to formalize employment, some policies towards labor supply side might be helpful to achieve the goal of regulated but efficient labor market. Those policies include primarily enhancing education and providing training to people who are potentially informal worker.

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