

# On Measuring Informal Employment in Urban China

Wu Yaowu Du Yang Albert Park\*

## 1. Background

Informal employment is an employment status of an individual worker whose job characteristics can be described as unstable or not decent. These jobs are unregulated by labor legislations; they are usually not covered by social insurance system. Consequently the scale of informal employment in a country can be used to measure social vulnerability. From a macroeconomic perspective, the informal sector of labor market in a country reflects its development stage; it is well known that there always is lower informality level in advanced countries but higher in developing countries (Schneider F. , 2002; Schneider and Enste, 2000).

In a general wage framework, the fundamental characteristic of informal employment include lower wage in terms of monetary payment and instability and lack of respect. But, how to empirically measure the instability and vulnerability is still challenging for scholars from all over the world. ILO recommended the statistical definition in the 90<sup>th</sup> ICLS (Hussmans, 2002). Even though majority of scholars accept the definition in principle, but it is still difficult to define informal employment using survey data, this is because that there are always many special factors that need to be involved into the definition of informal employment in different countries.

Another constraint of the statistical definition of informal employment has to do with the data from surveys. The proposed definition suggests that informal employment be determined by jobs and employer (or unit) characteristics jointly, and job characteristics should be dominated. But in the manipulation, survey-designers always pay close attention to concerned questions which affect labor force significantly or mostly concerned by government. Hence, there are different questions in different survey instruments. The measurement and comparison in different countries usually is not able to find a standard of well defined.

Different countries have distinctive institutional environments. China as a transition country has developed a new style employment system with its own characteristics in the past 30 years. For example, China's current labor laws focus only on an employee's formal contract with his employer and it is considered as a symbol of a stable employment. These emphasis on formal contract is demonstrated both in labor law enacted in 1993 and labor contract law enacted in 2008. However, China has not yet enacted a social insurance law. According to the newly labor contract law in 2008, an employee has right to end the labor relation if his employer doesn't provide him with a social insurance, but in practice, the regulation in the law is not mandatory. It is common that both an employer and a worker consider a job with formal contract stable even though the employer rejects to pay for the social insurance for the employee.

Whether or not participate in social insurance plan is decided by employers and employees especially those who are rural migrant workers. It is common that rural migrant has little incentive to participate a social insurance plan since social security coverage is restricted to local residents.

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\* Wu Yaowu and Duyang are professors in Institute of Population and Labor Economics, Chinese Academy of Social Science. Albert Park is professor in Economics Department in Oxford university.

This might be another very institutional condition different from other countries.

Since 1980's, the reform on the social security system has started, but it hasn't yet completed now. Given that the share of social pension is about 70% in total social insurance accounts, let's briefly introduce the process of reform in the pension system and analyze the special constraint in measuring informal employment. State-owned enterprises (SOE)s provided pension for their retired employees directly before the aggressive reform of SOE by the end of 1990s. However, more and more SOEs were not able to provide pension for their retired employee any more due to their financial deficit during the transition. Central government made initiatives to advocate social insurance system to replace for unsustainable enterprise pension system. As a result, every province or municipal city was authorized to choose their own pension system. Majority of provinces gave the local authority at county or city level the autonomy to take charge of their pension system. This institutional arrangement causes a severe obstacle for labor force's migration to join the social pension system, since the employee's contribution to pension system can not be easily transferred from one city to another. Rural migrants have much higher mobility in the labor market than their counterparts who are local residents, and they are still discriminated by the institutional obstacle of hukou system; they are unable to reside in destination cities successfully. Hence, rural migrant workers reject to make contribution to pension account and escape from social pension coverage. The enterprises that hired rural migrant workers have incentive to escape from the contribution too, which can reduce their cost. The local government permits the escape for increasing the attraction for enterprise and investment from other administrative region.

The pension account is contributed by two parts, enterprise contribution enter into social account and worker's contribution into personal account. The share of enterprise's contribution is about 20% of total wage cost and the personal contribution is equal to 8% of wage. If a worker evades the contribution, his employer will save 20% of wage that they are supposed to bear to make contribution for the employee. If a worker withdraws from pension system, he will receive the part of personal account, namely, 8% of wage. At the same time, the other part of social account should be deposited to local government's finance income. Therefore, local governments also have incentive to permit rural migrant workers to withdraw from social pension system when they leave.

The region-segregated social pension system and hukou system lead to different choices between local resident workers and rural migrant workers. These two special institutional obstacles result in not surprising outcomes. That is local workers have higher share of social insurance coverage and rural migrant workers have lower share. The difference in social insurance coverage between the two subgroups of population led to significant difference in measuring the level of informal employment according to different definition standards.

Hence, the standard of social insurance on informal employment definition should overestimate the informality of rural migrant worker. Segregated hukou system and local social insurance coverage system caused the abnormal result. Lack of social insurance coverage is a result of self-selection but not vulnerable.

During the period of state –owned enterprise (SOE)'s aggressive reform, there were more than 60 millions of workers who were laid off (author's calculation in terms of labor yearbook). To encourage these laid-offs to be re-employed, government made contribution to social insurance fund for them. In the survey data, if a respondent of re-employed worker reported that s/he had

social insurance, the welfare could be provided by government instead of by employers. Unfortunately, we can't accurately identify who made payment on their social insurance in the questionnaire; we don't know exactly either it is government or employer who paid for the social insurance costs. If informal employment measure the job characteristics and employment quality, the fact that social insurance provided by government should underestimate the informality in the subgroup of the re-employed who concentrated in local resident.

## 2. The statistical definition of informal employment

The questionnaire of the third wave of Chinese Urban Labor Market Survey(CULS3) contains detailed information on employer type, industry, occupation, location, number of employees, work status, formal contract, and so on. We can identify formal and informal sector, formal and informal job, as well as informal employment from formal employment by the information on job and unit jointly.

When we categorize about "formality", including 3 groups of concepts: formal sector and informal sector; Formal job and informal job; and Formal employment and informal employment.

This definition on informal employment (or formal employment) jointly determined by sector and job. In order to identify informal employment accurately, let's first define informal sector and informal job.

We define formal sector and informal sector by owner of employers or type of employer<sup>1</sup>. Any government or public agencies, state or collective owned enterprise and privately-owned enterprise with more than 7 employees are defined as formal sector. In contrast, any entity with few than 7 employees is defined as informal sector.

Which job should be seen as an informal one? We make judgement by the stability and the decency of the job. Family workers and the self-employed are seen as informal job. The formal clerks and officials in government and public service unit are seen as formal job. Employees in formal work unit or small enterprise need complementary information on contract to distinguish formality. Employees with formal contract, especially long-term contract, should be seen as having formal job; employees without contract or temporary work can be seen as have informal job.

We define the followings employees as informal employment: 1). unpaid family workers; 2). self-employed workers; 3) informal employees in formal sectors, which include employees without formal contract and temporary workers. Formal sector include government and public service unit, formal register enterprise; 4) Informal employee in informal sectors, Informal sector mainly concern the household and mini-enterprise that employee is less than 7; and 5) Employer in mini-enterprise.

In this paper we propose four definitions for informal employments. As far as the special environment in urban China is concerned, we choose two different standards to measure informal employment using individual level observables. One is social insurance standard and another job characteristics standard. Any worker with one of the three types social insurance, namely, pension,

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<sup>1</sup> The standard of informal sector comes from B13 in questionnaire. Type of the employer who offers this job. There are 19 options. Option 1-14 are seen as formal sector; option 15 seen as informal sector; option 16-19 seen as household sector.

health, and unemployment insurance is defined as formal employment; those without any social insurance is defined as informal employment.

The second definition has to do with job characteristics standard. It focuses on the job stability and the decency of a job. In the empirical strategy, we define all the workers as formal employment, and then choose the informal job characteristics one by one. The strategy needs cleaned data of high quality, otherwise, we are unable to identify the informal employment sufficiently; we might overestimate the part of formal employment, which equals the remanent.

A formal employee in public services or government agencies is defined as formal employment whether in first definition or second definition. This is a special subgroup without social insurance or formal contract, but they are still enjoy the iron bowl in practice.

In the third definition, we extend the statistical definition of informal employment based on social insurance and job feature. If an employee possesses social insurance and with formal contract or decent work, such as employer in formal sector, he is defined as formal employment, otherwise, he is defined as informal employment.

We could also relax the third definition of informal employment. An employee either has one of three social insurance or has a formal contract can be defined as formal employment.

### 3. The informal employment situation in urban area

There are unbalanced regional economic development among east area, middle and west areas. Employees in the east area, which is more developed enjoy much higher wage, more stable and decent job and more extensive social insurance coverage than their counterparts in less developed middle and west areas.

According to the first definition on social insurance criteria, the share of informal employment in local resident workers is 16.2%, and rural migrant worker 60.6%. While there are significant differences among cities, the major gap are found between local residents and rural migrant workers.

In four cities, the share of informal employment among rural migrants who didn't join social insurance program is approaching to 70% and above.

The second definition is based on job characteristics. The share of informal employment is 26.3% in local resident workers and 49% in rural migrant workers. There is still obvious discrepancy between two groups of population, but the difference is far smaller than that from the first definition.

The third definition is the strictest criteria on formal employment. There is about 29.5% informal employment in local resident workers, and 65.7% in rural migrant workers.

According to the fourth definition, there is about 13% informal employment in local residents and 44.3% in rural migrant workers.

When using different definitions on informal employment, there are significant different results. But we find a common feature that informal employment rate is lower in developed cities, shanghai, fuzhou and guangzhou, and it is much higher in less developed cities such as wuhan, shenyang and xi-an.

Table 1 : informal employment by different definitions in cities

unit:%

(Revised version)

city	Definition 1			Definition 2		
	Full sample	Local resident	Migrant	full sample	Local resident	Migrant
Shanghai	16.6	4.0	69.9	14.7	8.9	39.3
Wuhan	25.8	19.1	86.8	37.0	31.5	87.3
Shenyang	29.4	24.6	72.9	53.9	51.9	71.4
Fuzhou	32.7	24.0	64.5	35.2	29.0	57.9
Xi-an	30.0	26.2	76.3	35.8	33.2	66.2
Guangzhou	31.0	18.2	46.3	34.6	27.7	42.9
total	25.5	16.2	60.6	31.1	26.3	49.0

Table 1: continued

city	Definition 3			Definition 4		
	Full sample	Local resident	Migrant	Full sample	Local resident	Migrant
Shanghai	22.7	10.7	73.2	9.3	2.5	38.0
Wuhan	39.1	33.3	91.4	23.2	16.7	82.2
Shenyang	58.3	56.1	78.9	26.0	21.4	66.9
Fuzhou	44.6	37.2	71.4	24.3	16.8	51.6
Xi-an	41.0	37.7	80.0	25.3	22.1	63.3
Guangzhou	41.2	31.5	52.8	25.7	15.0	38.6
total	37.2	29.6	65.9	19.9	13.2	45.4

Note : Definition1, whether an employee has any social insurance; definition2, whether an employee has a formal contract or decent work ; definition 3, whether an employee has social insurance and has a formal contract ; definition 4, an employee either has a social insurance or has a formal contract.

It is necessary to compare the results that are derived from different definitions of informal employment. As reported in table 1, the formality is 74.5% and 68.9% respectively (see the first column in table 2). In the group of local residents, about 84% of formal employment according to the first definition is also defined as formal employment by the second definition, and 81% of informal employment by the first definition is considered as informal employment by the second definition too. Meanwhile, 16% formal employment according to the first definition would be informal employment by the second definition.

In the group of rural migrants, about 88% of formal employment by the first definition is also formal employment in the second definition. There is 12% formal employment by the first

definition would be defined as informal employment by the second definition. In the special institutional environment of China,. These two definitions of informal employment will generate different results in terms of percentage of people.

Table 2: The distribution of informal employment with different definitions unit:%

	full samples	Local residents			Migrants		
		total	formal 2	informal 2	total	formal 2	informal 2
	( 1 )	( 2 )	( 3 )	( 4 )	( 5 )	( 6 )	( 7 )
formal 1	68.9 (74.5)	100 (84.0)	84.0 (95.8)	16.0 (50.9)	100 (40.5)	88.1 (70.1)	11.9 (9.8)
informal 1	31.1 (25.5)	100 (16.0)	19.3 (4.2)	80.7 (49.1)	100 (59.5)	25.6 (29.9)	74.4 (90.2)
total	100 (100)	100 (100)	73.6 (100)	26.4 (100)	100 (100)	50.9 (100)	49.1 (100)

Note: formal 1 and informal 1 are the first definition of informal employment, formal 2 and informal 2 are the second definition.

In order to get much detailed knowledge on the informal employment, we further analyze the employment according to employment type. In addition to formal employment, informal employment can be classified as informal employees in informal sector, informal employees in formal sector, employers in informal sector, the self-employed and family workers. Here, we use the first definition.

In the local resident workers, informal employment mainly are informal employee in informal sector(5.2%), informal employee in formal sector(5.4%) and self-employment(4.6%). In the rural migrant worker, informal employment mainly are informal employee in informal sector(24.1%), self-employed(20.3%) and informal employee in formal sector(12.1%).

Table 3: Different types of employment unit: %

	Local residents	Migrants	Total
Formal employment	83.9	39.5	74.6
Informal employee in informal sector	5.4	24.1	9.3
Informal employee in formal sector	5.2	12.1	6.6
Employer in informal sector	0.2	1.0	0.4
Self-employed	4.6	20.3	7.9
Unpaid family worker	0.8	3.0	1.3
Total	100	100	100

Husmanns(2002, 2005) suggested that both ‘employment in informal sector’ and ‘informal employment’ be measures that are useful for analytical and policy-making purposes. In terms of two dimensions on informalisation, we analyze the informal sector and informal job respectively.

There is 84% local resident samples employed in formal sector, however, there is only 54% rural migrant samples worked in formal sector. The share of local resident sample employed in informal sector is 15% but rural migrant sample worked in informal sector is 45%. Household sector provides very few jobs for local resident or rural migrant.

Informal jobs exist both in informal sectors and formal sectors. There is 95% formal jobs are found in formal sector among local residents. Informal sectors provide very few formal jobs for local residents. However, more than 54% of informal jobs are found in formal sectors. In the rural migrant sample, 71% formal jobs are provided in formal sector, informal sector provide the other 29%. We can draw a conclusion that formal jobs are mainly provided by formal sectors.

There is obvious different distributions of informal jobs between local residents and rural migrants. Local residents who occupied informal job mainly in formal sector, however, rural migrant's informal job mainly in informal sector.

Table 4: the employment distribution in sectors and jobs unit:%

	Full sample	Local resident workers			Migrant workers		
		Total	Formal jobs	Informal jobs	Total	Formal jobs	Informal jobs
Formal sector	77.9	84.1	94.8	54.1	54.4	71	37.3
Informal sector	21.3	15.1	5.1	43	44.5	28.9	60.6
Household sector	0.9	0.8	0.1	2.9	1.1	0.1	2.1
Total	100	100	100	100	100	100	100

Note : Formal job defined by formal contract and decent work.

We classify worker's industries into 5 main types: manufacturing, other industries(including mining, construction, and electricity, gas and water supply), public service(including government agencies, healthcare, education, finance and insurance, etc), personal service(including communications and transportation, information transfer and computer software, wholesale and retail, lodging and catering, inhabitant service), ect.

According to the first definition, there is only 6% to 9% local residents in the sample who are in informal employment in manufacturing, other industries and public services. In the personal services and other, the share of informal employment approach to 23% and 25%. In the rural migrant sample, there is about 64% informally employed in personal service and 58% in other industry. There is only 38% being informally employed in public service.

The second definition on informal employment provides information different from that from

the first definition. The rural migrants' informality declined significantly in every category but the informality in local residents rised. In the manufacture, the informality of rural migrant is only 24% and approach to 18% of local resident.

The third definition presents a result that is much close to the first definition. It is found that there is an increase in the informality of local residents. The fourth definition's result is similar to that from the second definition; there is a declining trend in the informality of among local residents.

Manufacturing is a highly competitive industry, but we find a relative low informality here both in local residents and in rural migrants.

Table 5-1: informality in different industries unit:%

	Definition 1			Definition 2		
	Full sample	Local resident	Migrant	Full sample	Local resident	Migrant
Manufacturing	14.3	6.8	52.8	18.8	17.9	23.5
Other industries	17.9	9.3	57.5	24.3	19.3	46.8
Public services	8.6	5.9	37.8	9.6	8.4	22.2
Personal services	33.6	22.9	64.3	40.6	35.3	55.8
other	28.3	24.7	57.6	35.3	33.1	53.4
Total	25.4	16.0	60.6	30.9	26.1	49.1

Table 5-2: informality in different industries unit:%

	Definition 3			Definition 4		
	Full sample	Local resident	Migrant	Full sample	Local resident	Migrant
Manufacturing	26.6	21.0	55.4	6.8	3.9	22.1
Other industries	31.1	23.8	64.9	12.4	5.6	43.7
Public services	13.0	10.2	41.6	5.1	3.9	17.9
Personal services	46.9	38.9	69.9	28.0	19.7	51.8
other	41.5	37.6	73.6	27.3	24.7	48.2
Total	37.0	29.4	66.0	19.9	13.1	45.4

#### 4. A further analysis on informal employment

There are obvious differences in informality between male and female employees. Females are more likely concentrated in informal employment, especially for those older age group. The female who occupied informal employment in local resident is about 20%, however, male is about 14%. Female rural migrant who occupied in informal employment is about 64%, male is about 58%. There is only a weak proof to support the judgement which Hussmanss(2002) proposed that women are more likely than men to be engaged in informal employment.



In the age structure, younger age group has much higher informal employment, and then decline accompanied with age rising. In 45-64 year-old group of local residents, the share of informal employment declined continually, in the contrast, the share is increasing in rural migrant sample.

Table 6: informality by age group and gender(definition 1)

unit:%

Age group	Full sample	Local residents			Migrants		
		Female	Male	Total	Female	Male	Total
16-24	47.4	30.5	32.8	31.6	73.5	72.2	72.9
25-34	26.4	19.7	13.7	16.8	55.4	53.2	54.3
35-44	25.6	17.5	14.7	16	65.9	53.2	58.7
45-54	18.5	16.9	11	13.1	72.4	63.4	67.1
55-64	15.9	42.5	7.6	11.4	75.5	62.9	65.8
Total	25.5	19.7	13.5	16.2	64	57.7	60.6

According to the second definition, there is same gender difference in informality. Female who occupied in informal employment has high share in two population sample. But informal employment's share in local resident and in rural migrant are all experienced a U-shaped route as the age rise. Both younger and older age group have higher informality.

Table 7: informality by age group and gender (definition 2)

unit: %

Age group	Full sample	Local resident			Migrant		
		Female	Male	Total	Female	Male	Total
16-24	40.1	28.3	32.7	30.3	53	58.9	55.9
25-34	24.5	20	17	18.5	42.4	40.9	41.6
35-44	31.1	27.6	24.1	25.8	56.4	44.1	49.4
45-54	36.0	39.7	29.8	33.4	67.2	54.6	59.8
55-64	29.1	58.3	22.6	26.5	76.2	53.1	58.4
Total	31.0	28.5	24.5	26.3	51.7	46.9	49.1

Those who were informally employed usually have lower welfare. Almost in every city, the wage of informally employed always be less than the formally employed. In the local resident sample, the wage of informally employed is about 66% of formally employed. In the rural migrant sample, the rate is about 52%.

In the local residents, wage inequality is much more severe in informal employment than in formal employment. The gini-coefficient of informal employment is 0.36; it is 0.39 in formal employment, there is no significant difference. In the rural migrant, the gini-coefficient of informal employment is approach to formal employment, 0.41 and 0.33 respectively.

Table 8: the wage of different employment groups in different cities

unit: yuan

	Full sample	Local resident			Migrant		
		Formal employment	Informal employment	informal/formal ( % )	Formal employment	Informal employment	informal/formal ( % )
Shanghai	2937	2965	1979	66.7	4475	2332	52.1
Wuahn	2117	2353	1274	54.2	2303	1779	77.2
Shenyang	1730	1836	1339	72.9	2385	1706	71.5
Fuzhou	2440	2602	2046	78.6	2767	2089	75.5
Xi-an	1731	1788	1517	84.9	2762	1636	59.2
Guangzhou	3615	3416	2705	79.2	5022	2819	56.1
Total	2625	2621	1725	65.8	4495	2336	52
Gini-coefficient	0.39	0.36	0.39		0.41	0.33	

Note : This is first definition.

There is severe heterogeneity in the informal employment group. For example, personal characteristics of employer in mini-enterprises are different with informal employee. To alleviate the effect of heterogeneity, we just focus on the employee and make comparison on the wage differences. Whether in local residents or in rural migrants, the wage of an informal employee is constant relative to formal employee about 63%. But the wage of informal employee in rural migrant is higher than those in local resident. Even the gini-coefficient of formal employee is 0.34 both in local resident and in rural migrant. In informal employee group, the gini-coefficient of local resident is 0.36 and 0.29 respectively in rural migrant.

Table 9: the wage of different employee in different city unit: yuan

	Full sample	Local resident			Migrant		
		Formal employment	Informal employment	informal/formal ( % )	Formal employment	Informal employment	informal/formal ( % )
Shanghai	2822	2875	1755	61.1	4522	2231	49.3
Wuahn	2153	2302	1324	57.5	1744	1331	76.3
Shenyang	1647	1741	1258	72.2	2303	1582	68.7
Fuzhou	2311	2442	1993	81.6	2476	1902	76.8
Xi-an	1659	1731	1390	80.3	2205	1432	64.9
Guangzhou	2882	3150	2198	69.8	3183	2070	65

Total	2415	2514	1584	63	3283	2028	61.8
Gini -coefficient	0.34	0.34	0.36		0.34	0.29	

Note : this is second definition.

Another significant difference between formal and informal employment is working hours. In the first definition, the group of formal employment of local resident work 44 hours per week, but informal employment work 52 hours per week. In the rural migrant group, formal employment work 53 hours, however, informal employment work 58 hours per week.

According to the second definition, a formal worker of local residents spent 43 hours in his work per week, and an informal worker spent 51 hours. In the rural migrant, formal employers work 51 hours per week, but informal employed work 61 hours.

So, on average, informal employment's working-hour is much longer 5-10 hours than formal employment companion per week.

In the same employment type, there is very small variation among cities, especially in the formal employment.

Table 10-1: he working time of dfferent employment unit: hour

city	full sample	Local resident			Migrant		
		Formal	Informal	Total	Formal	Informal	Total
Shanghai	44.2	41.7	46.3	41.9	53.8	53.7	53.7
Wuahn	47.3	43.1	53.9	45.2	62.6	66.8	66.2
Shenyang	49.7	47.0	53.4	48.6	56.3	61.1	59.8
Fuzhou	47.5	43.5	51.3	45.4	49.7	58.4	55.3
Xi-an	48.8	45.0	54.7	47.5	61.2	63.9	63.3
Guangzhou	49.8	45.3	50.0	46.1	52.0	56.9	54.3
Total	47.3	43.6	52.4	45.0	52.9	57.7	55.8

Note: This is the first definition

Table 10-2: he working time of dfferent employment unit: hour

city	Full sample	Local resident			Migrant		
		Formal	Informal	Total	Formal	Informal	Total
Shanghai	44.2	41.6	45.5	41.9	49.2	60.8	53.7
Wuahn	47.3	42.1	52.0	45.2	54.0	68.0	66.2
Shenyang	49.7	45.5	51.4	48.6	55.1	61.7	59.8
Fuzhou	47.5	43.5	50.2	45.4	49.0	59.8	55.3
Xi-an	48.8	43.9	54.9	47.5	59.9	65.0	63.3
Guangzhou	49.8	44.7	50.0	46.1	52.2	57.1	54.3

Total	47.3	42.9	51.2	45.0	51.2	60.5	55.8
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Note: this is the second definition

According to job style, the longest working-hour group is employers in informal sector whose average working time is approach to 65 hours per week, the second longer is self-employed who is about 63 hours. Family worker’s working time is about 60 hours. For informal employees, either in formal or formal sector, their working time is usually fewer than 50 hours.

Both in local residents and in rural migrants, those with formal employment have highest education level, which is 12.8 year on average. The second highest in education level is informal employees whose average year of schooling is 11 year. Employers and self-employed have average 10 years of schooling. Family worker’s education level is the lowest, which is fewer than 9 years.

Table 11: working hour and years of schooling in different employment groups unit: hour, year

	Working hour			Years of schooling		
	local	migrant	total	local	migrant	total
Formal employment	43.6	52.9	44.6	12.8	12.1	12.8
Informal employee in informal sector	48.5	51.1	49.9	11.8	10.5	11.1
Informal employee in formal sector	49.0	53.3	50.7	11.6	10.0	11.0
Employer in informal sector	60.2	67.5	64.5	11.6	9.6	10.4
Self-employed	59.9	66.5	63.4	10.5	9.0	9.7
Unpaid family worker	55.4	64.3	59.8	9.5	8.1	8.8
Total	45.0	55.8	47.3	12.6	10.7	12.2

This is first definition.

In the group of informal employment, the distributions of working places for local residents and for rural migrants are very similar between. ” *workshop, office, shop etc*” is dominant working place for local residents and rural migrants and there is about 70% of them worked in the place. There are about 14% of these people working in outdoor place or on the street. The working condition of informal employment is not bad as some people speculate

Table 12: the working place of informal employment

unit: %

	local resident	Migrant	total
1 workshop, office, shop etc.	70.4	70.2	70.3

2 own home	7.2	5.0	6.1
3 employer home or customer home	4.5	7.2	5.8
4 farm or farmland	1.4	0.0	0.7
5 building site	1.3	2.8	2.0
6 outdoor place or street	14.2	13.5	13.9
7 other	1.0	1.3	1.2

Note: This is the first definition.

Rural migrant workers have negative incentive to make contribution to social insurance coverage. In terms of second definition on informal employment by job characteristics, we compare the coverage of social insurance in different working groups. Table 13 reports the descriptive results.

In the total rural migrant group, only 24% workers were covered by pension system. Rural migrants who occupied informal employment 7% covered by pension system. For local resident workers, 81% were covered by pension system. Even for those who were in informal employment, the coverage rate of pension is about 50% .

22% rural migrant workers have health insurance. In contrast to this, more than 78% local resident workers were covered by health insurance system. The group of rural migrant who work in informal employment only 6% covered by health insurance system. In the contrary, informal employed in local resident who covered by health insurance is approach to 37%.

There is a huge gap in social insurance coverage between local residents and rural migrants. This is also the case for those between formal and informal employment. We can get an important information through comparison that rural migrant has no incentive to enter into social insurance system, even if who get stable job with formal contract.

Unemployment insurance coverage is lower than pension and health insurance both in local residents and in rural migrants. The decline is much severe in formal workers. 66% formal workers in local residents were covered by unemployment insurance, only 32% formal worker in rural migrants was covered by the insurance.

Through comparing with social insurance coverage, we can find the huge gap between local residents and rural migrants which led to the different rate of informal employment by various definition.

Table 13: social insurance coverage in different employment groups unit: %

	First definition						Second definition					
	Pension 1		Pension 2		Pension 3		Pension 1		Pension 2		Pension 3	
	Fm	In-f	Fm	In-f	Fm	In-f	Fm	In-f	Fm	In-f	Fm	In-f
local	96.7	0	3.6	17.2	5.2	4.5	92.4	49.6	4.4	10.0	5.5	3.9
migrant	59.8	0	4.9	1.8	9.3	4.1	39.7	6.9	3.8	2.2	7.9	4.4
total	92.6	0	3.8	9.5	5.7	4.3	84.3	35.4	4.3	7.4	5.9	4.0

	Health 1		Health 2		Health 3		Health 1		Health 2		Health 3		
local	92.3	0	3.6	31.2	9.3	6.9	89.0	45.6	4.7	17.7	10.0	5.9	
migrant	54.8	0	3.9	3.0	13.4	7.2	36.8	5.8	3.4	3.2	12.4	6.8	
total	88.2	0	3.7	17.1	9.8	7.1	81.0	32.4	4.5	12.9	10.4	6.2	
	Unemploy						Unemploy						
local	64.6	0							66.3	20.3			
migrant	46.2	0							32.1	3.8			
total	62.6	0							61.0	14.8			

Note: "Fm" means "formal employment"; "In-f" means "informal employment".

Pension 1 is urban worker pension provided by employer or government; pension 2 is urban local resident pension purchased by volunteer; pension 3 is commercial pension purchased by worker themselves.

Health 1 is health insurance contributing to the fund jointly by employer or government and employee. Health 2 is local resident health insurance purchased by volunteer. Health 3 is commercial health insurance.

Could rural migrants be successfully integrated into urban society if they have migrated 10 years earlier? From the descriptive information on employment status in Table 14, we find that their possibilities of obtaining employment formality and social insurance coverage are much close to the ones of new migrants but far away from the ones of local residents. This means old migrants are not able to overcome the institutional obstacle in urban area living like local residents.

Both long-term migrants and short-term migrants prefer to join the rural cooperative health insurance program. The same low coverage rate implies that social insurance in urban area is not very attractive to migrants.

Table 14: Migrant can enter into city society ?

unit : %

	Migrate more than 10 year	Migrate no more than 10 years	Local resident
informal employment (1)	53.1	64.0	16.2
informal employment (2)	45.6	50.6	26.3
Pension coverage	25.5	20.7	74.6
Health insurance coverage	22.5	19.3	71.4
Unemployment insurance coverage	19.3	14.2	36.6
local resident pension	3.6	2.4	5.5
commercial pension	8.4	4.8	4.4
local resident health insurance	5.9	3.6	10.5
commercial health insurance	13.7	8.0	7.4

rural pension	5.7	5.2
rural migrant pension	2.2	2.7
rural cooperation health insurance	34.3	34.7
rural migrant health insurance	4.8	4.2

## 5. Who will occupy the informal employment?

In the survey sample, majority of informal employment existed in rural migrants and informal sectors. These are the two major factors that contributes to informal employment. Rural migrants as a sub-population that are discriminated by institutional system, is a dominating factor that determines informal employment.

Table 15 analyze who occupied formal employment. Age, gender and education are all contributing factors that affect job choices but the most prominent factor is migrant identity which means institutional discrimination. The range of marginal effect of migration on informal employment is from 0.32 to 0.39 by the first definition. Another important variable is the sector that labor force entered, if a worker chose a job in informal sector, he has a higher probability to have an informal job than in formal sector. The marginal effect of informal sector is about 0.26.

By the second definition of informal employment, migrant identity and sector are also prominent variables that correlate with informality. But the range of marginal effect of migrant identity is from 0.09 to 0.19 that decline significantly relative to the first definition. There is obvious gap of migrant identity coefficient between two definitions. the result of regression is consistent with descriptive result reported in preceding.

Table 15: who occupied informal employment

	Definition 1			Definition 2		
	(1)	(2)	(3)	Coef.	Coef.	Coef.
Age	-0.081 (0.012) [-0.024]	-0.094 (0.013) [-0.027]	-0.114 (0.014) [-0.031]	-0.040 (0.011) [-0.014]	-0.052 (0.012) [-0.017]	-0.083 (0.012) [-0.027]
Age square	0.001 (0.0002) [0.0002]	0.001 (0.0002) [0.0002]	0.001 (0.0002) [0.0003]	0.0005 (0.0001) [0.0002]	0.001 (0.0001) [0.0002]	0.001 (0.0002) [0.0003]
Sex	-0.159 (0.035) [-0.047]	-0.159 (0.036) [-0.045]	-0.135 (0.037) [-0.037]	-0.133 (0.034) [-0.046]	-0.137 (0.036) [-0.046]	-0.122 (0.037) [-0.040]
Education	-0.147 (0.007) [-0.043]	-0.152 (0.007) [-0.043]	-0.124 (0.007) [-0.034]	-0.143 (0.007) [-0.049]	-0.151 (0.006) [-0.050]	-0.116 (0.006) [-0.038]

Formal sector			-			-
Informal sector			0.797			1.158
			(0.043)			(0.043)
			[0.256]			[0.421]
Household sector			1.802			2.444
			(0.188)			(0.257)
			[0.632]			[0.704]
Migrant	0.952	1.165	1.019	0.368	0.539	0.267
	(0.036)	(0.042)	(0.044)	(0.037)	(0.041)	(0.044)
	[0.324]	[0.394]	[0.336]	[0.133]	[0.192]	[0.092]
City dummy	No	Yes	Yes	No	Yes	Yes
Observations	11163	11163	11163	11163	11163	11163

Note: robust standard error in parenthesis; marginal effect in bracket.

## 5. Conclusion and implication

The remarkable attribute of informal employment in urban China is the huge gap between local residents and rural migrants. The gap is even bigger in rural migrants when using first definition. 61% employment can be seen as informal one in rural migrants in terms of social insurance standard, the share increased 12 percentage than the share by job characteristics standard. In contrast, local residents' informality is only 16% by the first definition which declined 10 percentage than second definition.

Economic development and rising wage can improve the stability and the decency of job, but rural migrants can not overcome the institutional obstacles that restrict them to work in bad jobs and stop them from staying in urban areas in a long run. The rational rural migrants reject to make contribution to social insurance system because they have negative expectation to benefit from the contribution. With the recent shortage of labor force all over the country and the rapid increase in wage, government should take actions to accelerate the reform on hukou system and social insurance system. Government should encourage the rural migrants stay longer in urban areas by removing hukou system; Also, the coverage level of social insurance should be extended to all over the country to attract rural migrants to make contribution. At present, pushing the reform of social insurance toward portable across provinces is an urgent task. This reform should be necessary to improve the job quality and incentive to human capital investment to reply upgrade industries.

Informal employments are mostly distributed in informal sectors. Should government regulate the sector and increase the quality of job? No! this is because that enterprises in informal



sector are all small size and the regulation cost will be very high. Hence, local government has no incentive to regulate so many mini-enterprises. Government should encourage them to develop further and provide effective assistance, and to help them enter into the social insurance coverage system. At the same time, formal sectors have experienced rapid growth and shortage of labor force, it is a good opportunity to encourage enterprises in the sector executing labor contract law and make contribution to social insurance fund for their employees. We can propel the reform on social system in the next years.

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Appendix:

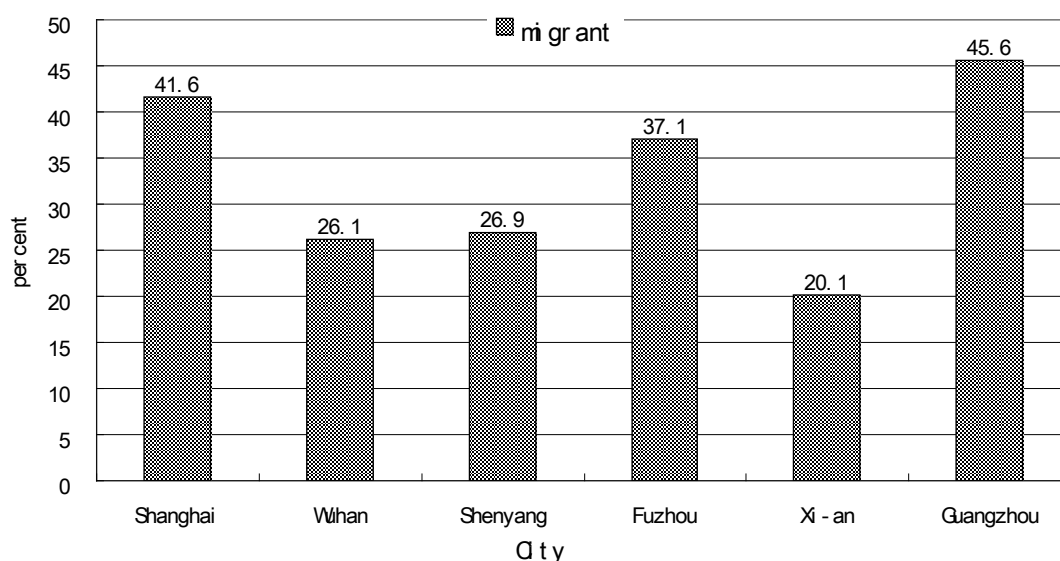


Figure 1A. The population structure in the sample city

Source: 1% population survey in 2005

Table 1 A: Descriptive information of sample

	Unweighted observations (workers: 16-64)				Year of schooling (weighted sample)			
	Total	local resident	rural migrant	urban migrant	Total	local resident	rural migrant	urban migrant
Shanghai	1,725	752	703	270	12.2	12.6	9.5	13.5
Wuahn	2,147	1,122	995	30	12.4	12.7	9.4	12.7
Shenyang	1,652	805	642	205	11.8	12.0	9.7	12.7
Fuzhou	1,800	977	632	191	12.4	12.8	10.3	13.0
Xi-an	1,884	881	841	162	12.5	12.7	9.7	12.1
Guangzhou	1,928	942	742	244	11.9	12.6	10.4	13.0
Total	11,136	5,479	4,555	1,102	12.2	12.6	10.0	13.1

Table 2 A: Informal employment in different subgroup of population

unit: %

	Definition 1				Definition 2			
	Total	local resident	rural migrant	urban migrant	Total	local resident	rural migrant	urban migrant
Shanghai	16.7	4.1	76.7	50.2	14.9	9.0	45.2	22.1
Wuahn	25.8	19.2	88.1	53.4	37.3	31.8	87.7	75.4
Shenyang	29.4	24.6	80.1	50.3	53.9	52.0	76.6	56.3
Fuzhou	32.8	24.0	71.4	41.4	35.3	29.1	65.2	33.4

Xi-an	30.2	26.3	78.5	64.7	35.9	33.4	66.0	67.3
Guangzhou	30.9	18.1	52.4	28.1	34.6	27.6	48.4	26.6
Total	25.5	16.2	67.0	39.3	31.1	26.4	55.0	29.4

Table 3A: informal employment in different subgroup of population unit: Hour, Yuan

	Working hours per week				Wage			
	Total	local resident	rural migrant	urban migrant	Total	local resident	rural migrant	urban migrant
Shanghai	44.2	41.9	56.2	46.5	2934	2923	2630	4012
Wuahn	47.3	45.2	66.2	68.1	2120	2149	1844	1852
Shenyang	49.7	48.6	60.4	57.9	1726	1709	1839	2011
Fuzhou	47.5	45.4	57.5	47.8	2441	2473	2249	2593
Xi-an	48.7	47.5	65.3	53.0	1731	1716	1874	2049
Guangzhou	49.8	46.1	56.2	48.6	3614	3289	3756	4752
Total	47.3	45.0	57.9	48.8	2624	2476	2936	4036

Table 4 A: social insurance coverage in different subgroup of population unit:%

	Full sample	Local resident	Rural migrant	Urban migrant
Pension insurance				
Shanghai	76.2	84.2	3.3	34.1
Wuahn	62.9	67.2	5.8	25.1
Shenyang	59.1	62.1	6.5	37.6
Fuzhou	54.1	60.8	15.3	44.4
Xi-an	68.8	72.2	5.2	28.4
Guangzhou	48.3	61.0	20.3	42.1
Total	64.2	72.0	13.0	39.2
Medical insurance				
Shanghai	75.2	83.2	4.5	31.3
Wuahn	60.1	64.3	4.0	19.5
Shenyang	57.4	60.3	6.4	37.0
Fuzhou	43.9	49.5	11.5	35.7
Xi-an	64.3	67.6	4.9	27.0
Guangzhou	44.5	56.1	19.0	40.1
Total	61.2	68.8	12.1	36.5
Unemployment insurance				
Shanghai	30.2	33.0	1.9	22.9
Wuahn	26.7	28.5	2.6	9.1

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Shenyang	11.6	12.0	3.7	13.2
Fuzhou	9.5	10.4	2.9	12.2
Xi-an	48.7	51.4	3.0	18.0
Guangzhou	30.8	36.5	16.7	36.4
Total	27.3	29.7	9.2	28.3

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