

# Measuring informal employment in urban China

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# Background

- Accompanying with economic transition, informal employment appeared in urban China.
- In the period of aggressive state owned enterprise reform, 1998-2002, about 60 million workers were laid-off and majority of them reemployed in informal sector.
- Accompanying with high economic growth, the employment pressure has been alleviated since 2004.
- Labor Contract Law was enacted in 2008, Chinese government began to formalize the labor market.
- The purpose of my research is to provide a statistical definition on measuring informal employment in urban China.

# 1. Statistical definition on informal employment proposed by ILO

- In the International Labor Conference 90<sup>th</sup> Session(2002 June), ILO proposed a job based definition on informal employment.
- The concept of informal sector is still an important dimension in policy-making.
- The standard (of the informal employment) has been accepted by majority of scholars and governments of developing countries.

# The conceptual framework for informal economy proposed by ILO

Product ion units by type	Jobs by status in employment								
	Own-account workers		Employers		Contribu ting family workers	Employees		Members of producers' cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	Formal	Informal	Formal
Formal sector enterprise s					1	2			
Informal sector enterprise s(a)	3		4		5	6	7	8	
Househol ds <sup>(b)</sup>	9					10			

## 2. Data and definitions

- The third round Chinese Urban Labor Market Survey( CULS3).
- 6 cities: Shanghai, Wuhan, Shenyang, Fuzhou, Xi-an, Guangzhou.
- Local residents: 700 households in every city, total 12335 observations in 6 cities.
- Rural migrants: 600 households in every city, total 8094 observations in 6 cities.

# Defining formal versus informal sector

- Formal sector:
  - Government and public/civil administrative agencies
  - Businesses with more than 7 employees
- Informal sector:
  - Businesses with 7 or fewer employees

# Defining informal employment

- ILO recommends a job-based definition of informal employment.
- But, every country has its own special institutions and circumstances
- Key issue is how to define formal versus informal wage employment, here we adopt two alternative criteria:
  - Social insurance provision (best reflects international practice)
  - Labor contract (unique institutional importance in China)

# Informal employment definition

- Informal workers:
  - Family workers
  - Self-employed
  - Casual workers
- Formal workers:
  - Employees in government or public administrative agencies with official government-approved jobs (*bianzhi*), such workers have permanent employment and receive pension and health benefits
  - Employers of firms with more than 7 workers



# Informal employment definition (for employees not covered by previous categories)

- Definition 1 (social insurance): A worker who does not receive any of the three main types of mandated social insurance benefits (pension, health, and unemployment)

# Informal employment definition (for employees not covered by previous categories)

- Definition 2 (labor contract): A worker who lacks a formal labor contract. Labor contracts include fixed-term contracts, open-ended contracts, contracts for work completed, and contracts with labor service companies that assign workers to other employers.

# Categories of informal workers

- According to Definition 2, the following workers are defined as having informal jobs:
  - A. Unpaid family worker.
  - B. Self-employed worker.
  - C. Informal employees in formal sector, which include employees without formal contract and temporary workers.
  - D. Informal employees in informal sector.
  - E. Employers in informal sector (7 employees or less)

# Combination definitions

- Definition 3: Informal employment based on either Definition 1 or Definition 2 (no social insurance or no labor contract)
- Definition 4: Informal employment based on both Definition 1 and Definition 2 (no social insurance and no labor contract)

### 3. Descriptive statistical results

1. There are significant differences in informal employment rate using different definitions.
2. There is a huge gap in informal employment between local residents and migrant workers; especially when it is calculated by definition 1. Because rural migrant workers still confront institutional obstacles in urban area, e.g., hukou system, city level coverage of pension system, etc.
3. Informal employment varies among different cities.

Table 1: informal employment by different definitions in cities

unit: %

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	31.0	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

Table 2: The distribution of different definition on informal employment unit:%

	full samples	Local resident			Migrant		
		total	formal 2	informal 2	total	formal 2	informal 2
formal 1	(74.9)	100 (84.0)	84.0 (95.8)	16.0 (50.9)	100 (40.5)	88.1 (70.1)	11.9 (9.8)
informal 1	(25.1)	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)	73.6 (100)	26.4 (100)	100 (100)	50.9 (100)	49.1 (100)



Table 3: Different types of employment

unit: %

	Local resident	Migrant	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

# Formal sector and formal job

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.

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

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

unit: %

Age group	Full sample	Local resident			Migrant		
		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

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

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	0.39	0.36	0.39		0.41	0.33	
-coefficient							

Note: this is first definition.

Table 9: the wage of different employee in different city

unit: yuan

	Full sample	Local resident			Migrant		
		Formal employmen t	Informal employment	informal/ formal (%)	Formal employmen t	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.



Table 10-1: the working time of different employment (Definition 1)

unit: hour

full sample		Local resident			Migrant		
city		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

Table 10-2: the working time of different employment (Definition 2)

unit: hour

Full sample		Local resident			Migrant		
city		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

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.

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
Total	100	100	100

The first 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				

Table 14: The characteristics of workers who lived in the city long or short unit: %

	More than 10 years	Less than 10 years	Full sample
Informal employment(1)	18.8	56.1	25.5
Informal employment (2)	28.1	44.5	31.0
Pension coverage	72.3	29.7	66.3
Healthinsurance	69.1	27.5	63.3
Unemploymentinsurance	35.8	18.4	33.3
Localresident pension	5.5	2.5	5.1
Commercialpension	4.6	5.0	4.7
Localresident health insurance	10.3	5.1	9.6
Commercialhealth insurance	7.8	7.6	7.8

# 5. Conclusion and implication

- One of the most remarkable attributes of informal employment in urban China is the huge gap between local residents and migrants, especially and rural migrant. The gap is even bigger when using first definition.
- Economic development and rising wage can improve the stability and the decency of job, but rural migrants can not overcome the institutional obstacles( Hu Kou, Social insurance system) 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.

- Formal sectors have experienced a rapid growth and a 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.



Comments Please!

Thanks!

