

Informal Employment and its Effect on the Income Distribution in Urban China

Wenshu Gao

Institute of Population and Labor Economics, CASS

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1. Introduction

- Background
- Data introduction
- Description statistics of the sample

Why informal employment matters?

- Informal sector continues to grow in many countries
 - Jobless growth, financial crises, economic downturns
- The employment in formal sector is informalizing
 - Formal sector enterprises use non-standard, atypical, irregular types of labor, with the economic globalization
- Informal employment becomes to be a big issue
 - Accounts for a big share of the total employment
 - Low wage, high inequality, less of social protection
- China's informal employment and its influences
 - More than 40% of urban worker are informal
 - Good for job creation, rural-urban migration
 - Big share and widening wage gap contribute to inequality

The advantage of this study

- Many literatures on informal employment, but few on informal employment and inequality
- Only one or two papers studied the informal employment and inequality in urban China, but did not include migrant workers
- No literature on informal employment and inequality in urban China, considering migrants account for more than 1/3 of urban workers
- The dataset is new, big sample, many big cities, three waves, abundant income and job information

The dataset of CULS

- Chinese Urban Labor Survey (CULS)
 - Three waves of 2001, 2005, and 2010, carried out by Chinese Academy of Social Sciences (CASS)
 - CULS 2001: 5 cities, 10,000 individuals
 - CULS 2005: 12 cities, 16,000 individuals
 - CULS 2010: 6 cities, 20,000 individuals
- We keep the same five cities surveyed in all the three waves
 - Shanghai, Wuhan, Shenyang, Fuzhou, Xi'an

Whole sample of the CULS

City	2001		2005		2010	
	Urban households	Migrant workers	Urban households	Migrant households	Urban households	Migrant households
Shanghai	700	600	500	500	700	600
Wuhan	700	600	500	500	700	600
Shenyang	700	600	500	500	700	600
Fuzhou	700	600	500	500	700	600
Xi'an	700	600	500	500	700	600
Daqing	-	-	-	400	700	600
Wuxi	-	-	-	400	-	-
Yichang	-	-	-	400	-	-
Benxi	-	-	-	400	-	-
Zhuhai	-	-	-	400	-	-
Baoji	-	-	-	400	-	-
Shenzhen	-	-	-	600	-	-
Guangzhou	-	-	-	-	700	600
Total	3500	3000	2500	5500	4900	4200

Source: Chinese Academy of Social Sciences (CASS), *China Urban Labor Survey (CULS)*, waves of 2001, 2005 and 2010

The sample for this analysis

workers in non-agricultural employment, age 16 -64

City	2001		2005		2010	
	Urban workers	Migrant workers	Urban workers	Migrant workers	Urban workers	Migrant workers
Shanghai	806	567	751	793	742	970
Wuhan	832	573	637	867	1120	1018
Shenyang	643	695	610	713	803	846
Fuzhou	845	530	742	842	961	805
Xi'an	772	567	599	785	872	997
Total	3898	2932	3339	4000	4498	4636
	6830		7339		9134	

Source: CASS: CULS 2001, 2005 and 2010.

Description statistics of the sample

	2001	2005	2010
Gender			
Male	59.67	57.28	56.2
Female	40.33	42.72	43.8
Marital status			
Unmarried	19.46	16.98	19.78
Married	80.54	83.02	80.22
Registration status			
Local	78.85	69.96	69.75
Migrant	21.15	30.04	30.25
Hukou status			
Agriculture	17.36	24.27	23.64
Non-agricultrue	82.64	75.73	76.36
Average age (years)	38.4	38.52	38.14
Years of Schooling (years)	11.06	11.24	12.06
Observations	6587	6969	8468

Source: CASS: CULS 2001, 2005 and 2010.

2. Defining informal employment

- The conceptual framework of ILO
- Production units by type
- Jobs by status in employment
- Who is in informal employment

The conceptual framework of ILO

Production units by type	Jobs by status in employment								
	Own-account workers		Employers		Contributing family workers	Employees		Members of producers' cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	Formal	Informal	Formal
Formal sector enterprises					1	2			
Informal sector enterprises ^(a)	3		4		5	6	7	8	
Households ^(b)	9					10			

Source: ILO (2003), *Guidelines concerning a statistical definition of informal employment*.

Production units by type

- Formal sector enterprises
 - Government or public organization
 - State-owned or collective enterprise
 - Private or foreign enterprise or joint venture
 - Individual enterprise, more than 7 employees
- Informal sector enterprises
 - Individual enterprise employing 1 to 6 employees
- Households
 - Households producing goods for market
 - Households employing paid domestic workers

Jobs by status in employment

- Own-account workers
- Employers
- Contributing family workers
- Employees
- Members of producers' cooperatives

—ILO(1993), *Resolution concerning the international classification of status in employment*

Who is in informal employment

- Own-account workers employed in informal sector (cell 3);
- Employers employed in informal sector (cell 4);
- Contributing family workers (cells 1 and 5);
- Members of informal producer's cooperatives (cell 8)
- **Employees holding informal jobs** (as defined in next slide) (cells 2, 6, and 10)
- Own-account workers in household sector (cell 9)

Employee holding an informal job

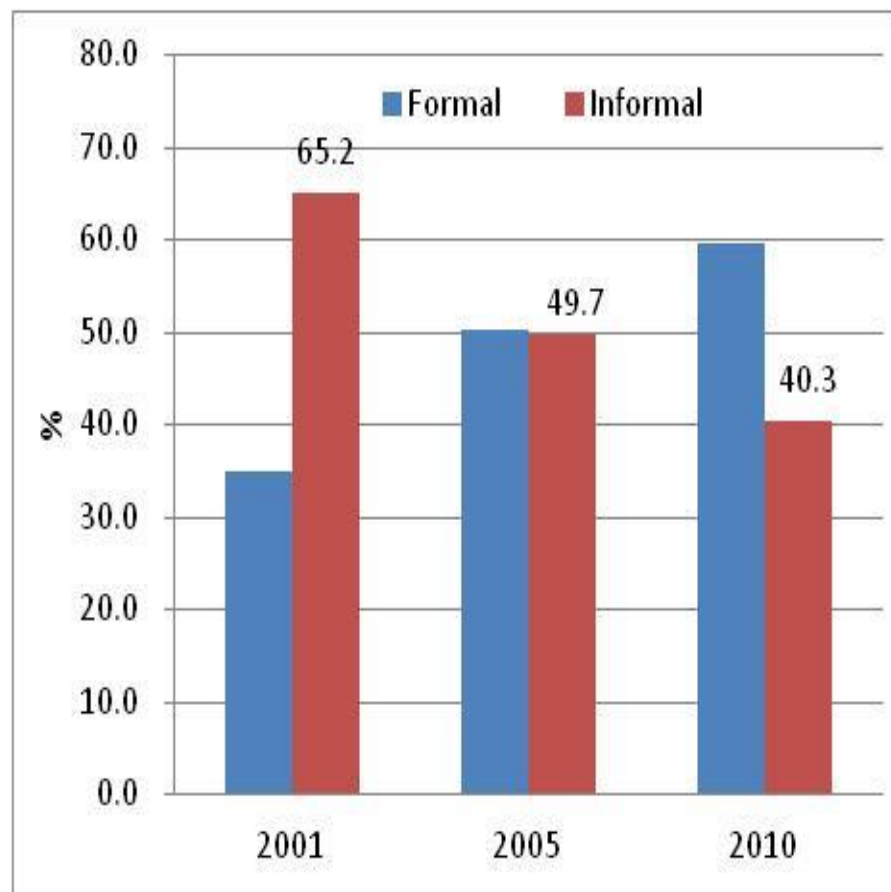
- Who has not a labor contract with his employer
- Or who has a labor contract with his employer but has not participated in social security
 - Only when he at least joined the social old-age insurance or social medical insurance
 - It means that an employee is in formal employment if he has a labor contract **and** has participated in old-age insurance or medical insurance

3. Measuring the informal employment in urban China

- The share of informal employment
- Wages and working hours
- Resident registration status
- Distribution by industry and unit type

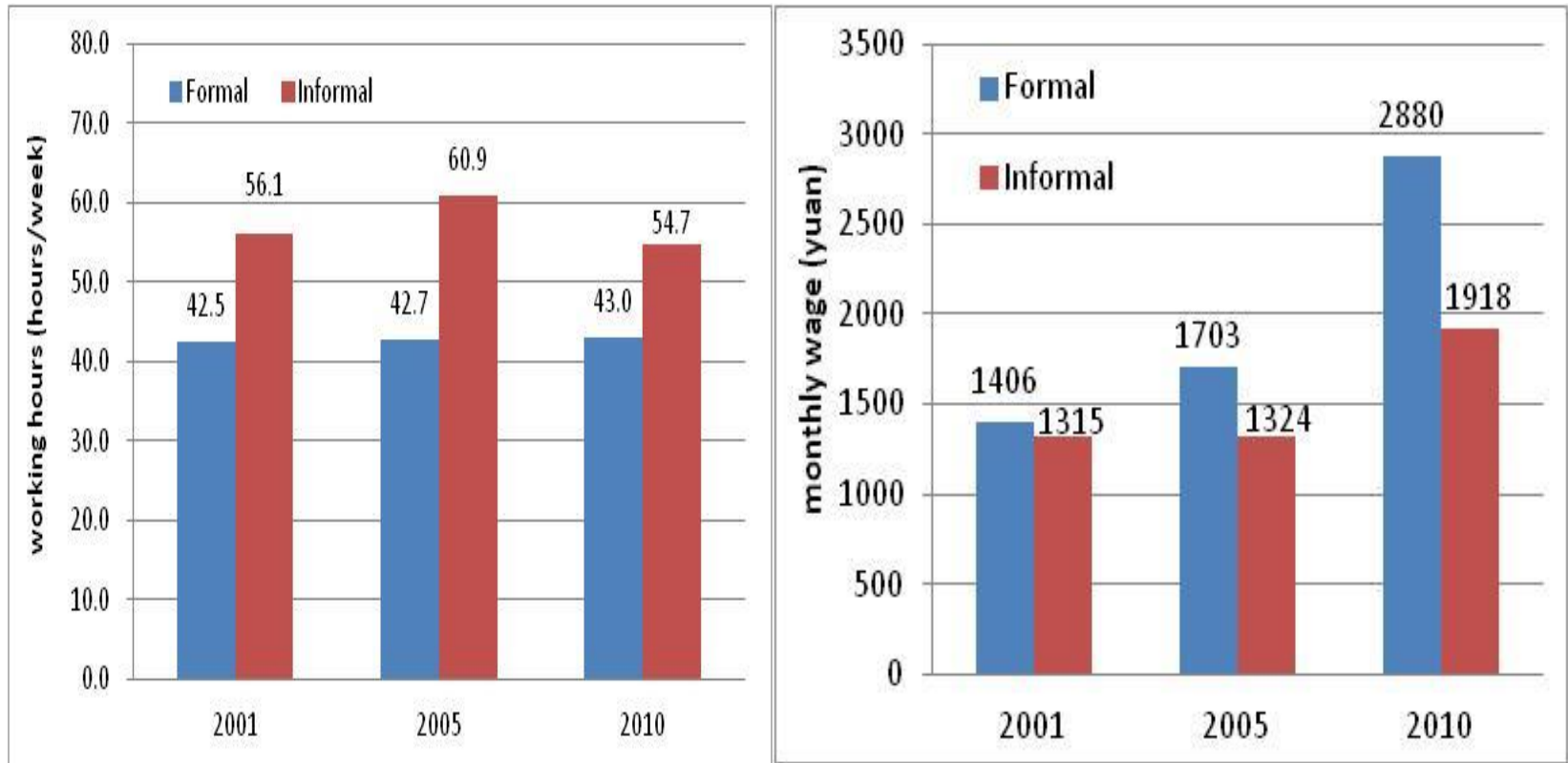
The share of informal employment

- Informal employment accounts for a big share of China's urban employment.
- But the share decreased quickly, from 65.2% in 2001 to 40.3% in 2010
- This formalization trend is different to many other countries
 - Due to China's economic growth, market oriented reform and labor market regulation



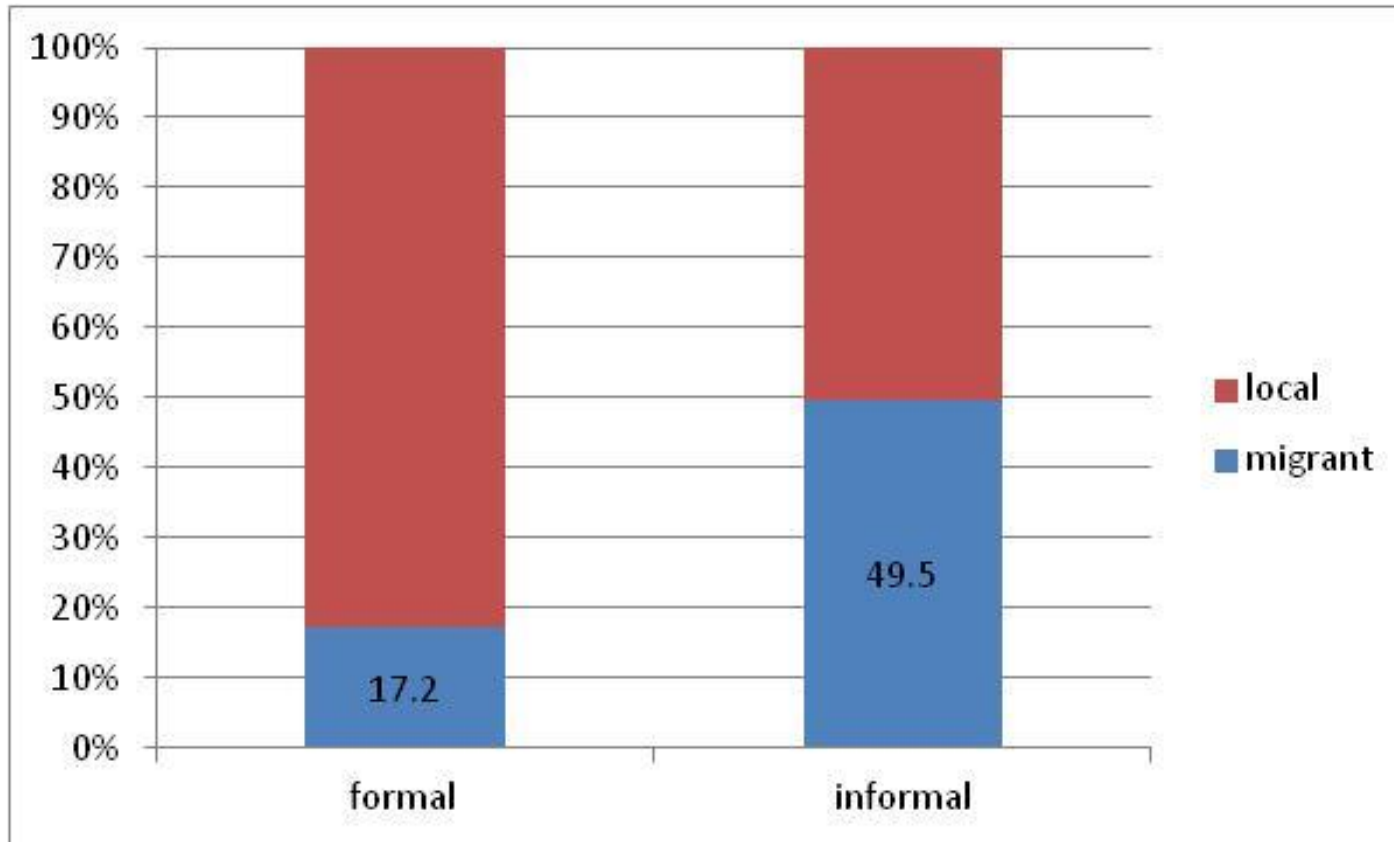
Source: CASS: CULS 2001, 2005 and 2010.

Informal workers work overtime and earn less



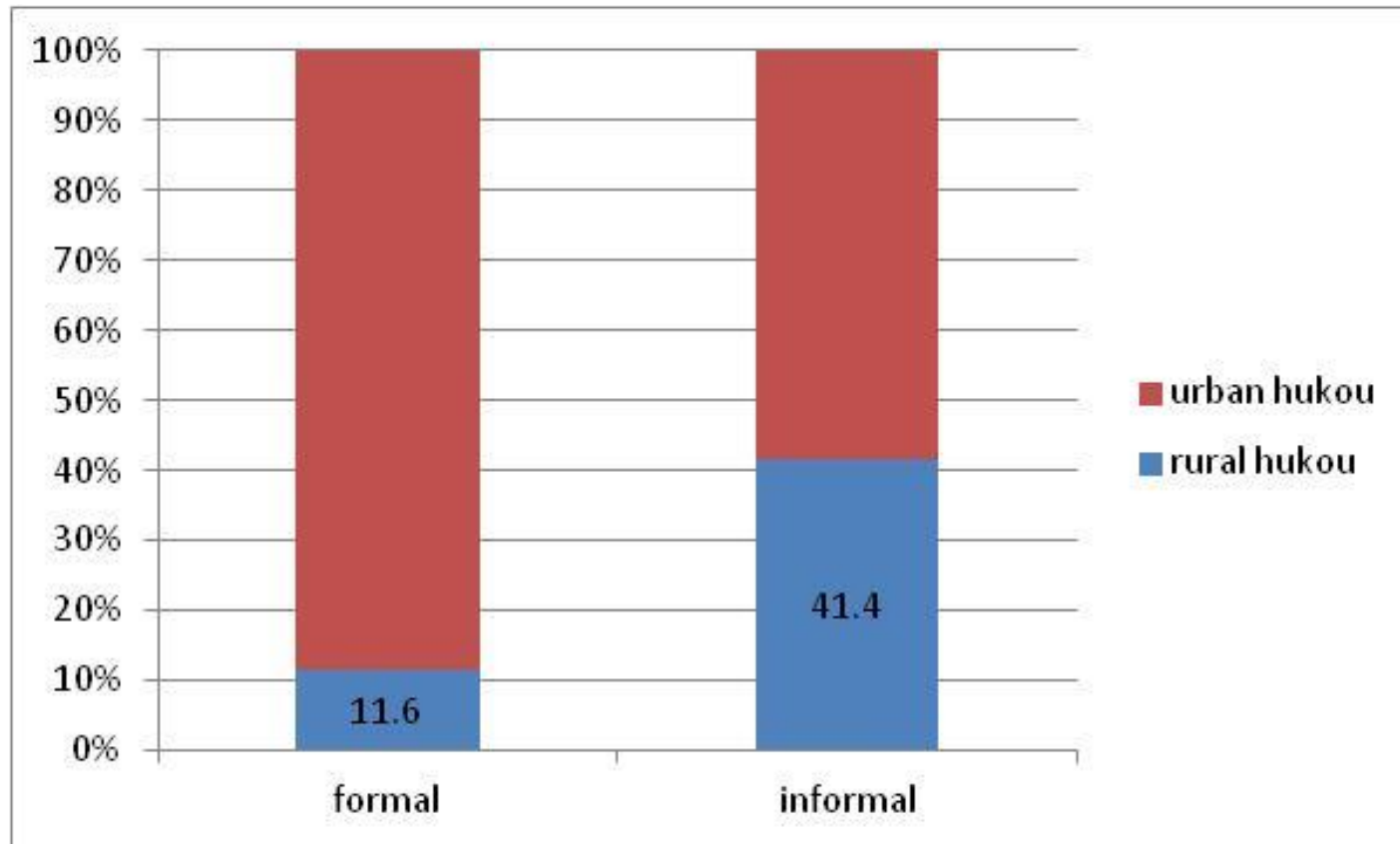
Source: CASS: CULS 2001, 2005 and 2010.

Migrants tend to be in informal employment (2010)



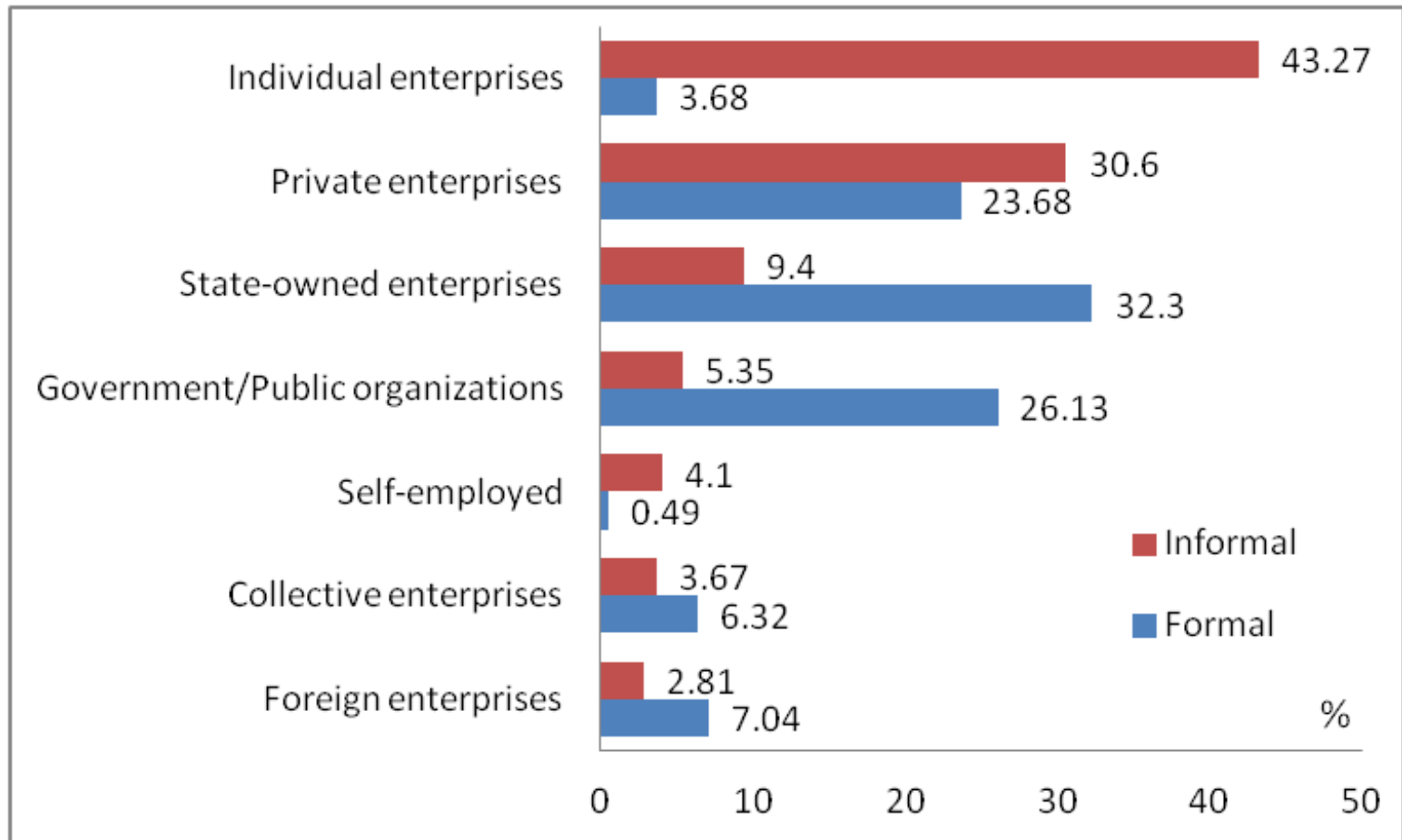
Source: CASS: CULS 2010.

The resident registration status (hukou) of formal and informal workers (2010)



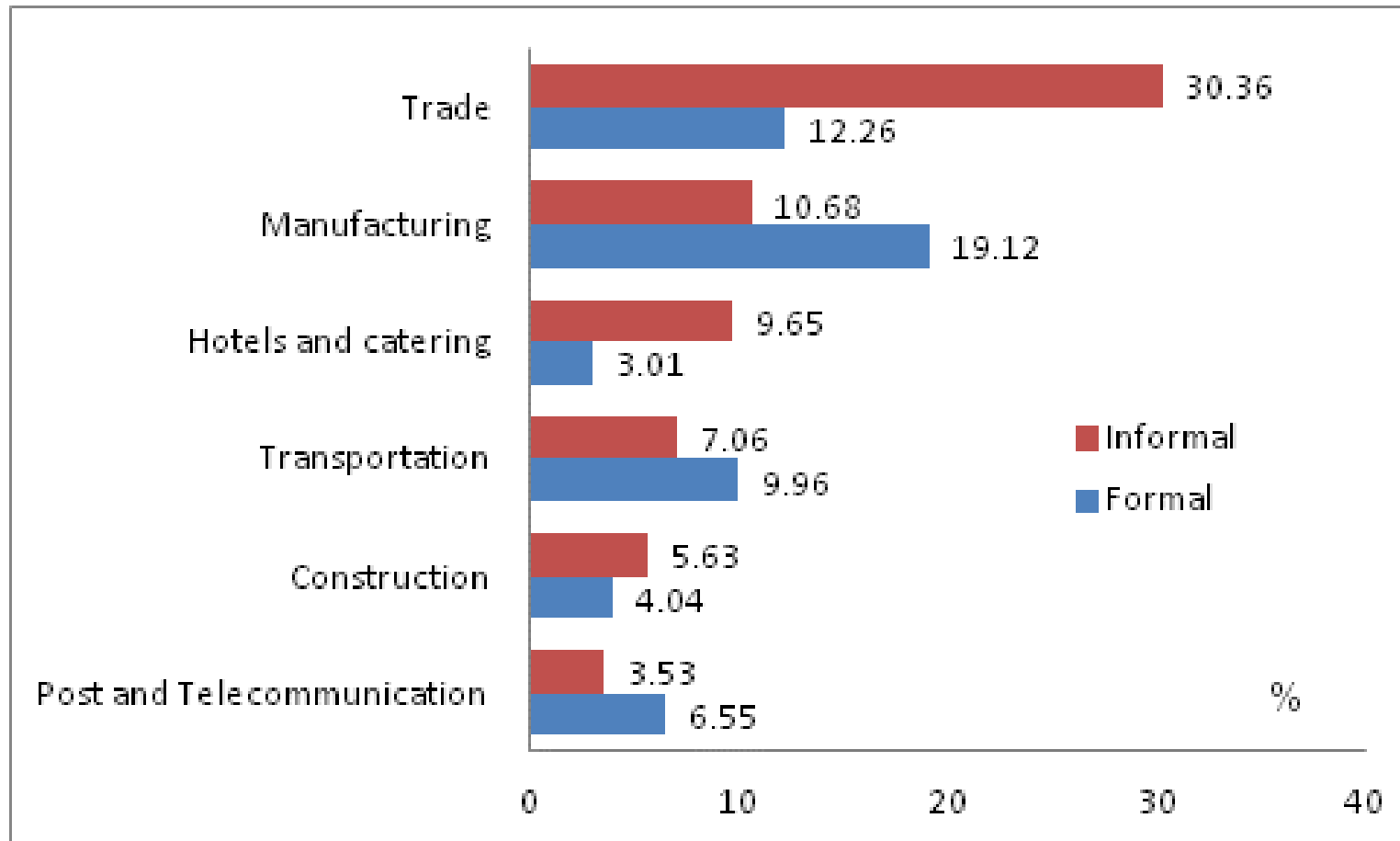
Source: CASS: CULS 2010.

The distribution of informal employment, by unit (2010)



Source: CASS: CULS 2010.

The distribution of informal employment, by industry (2010)

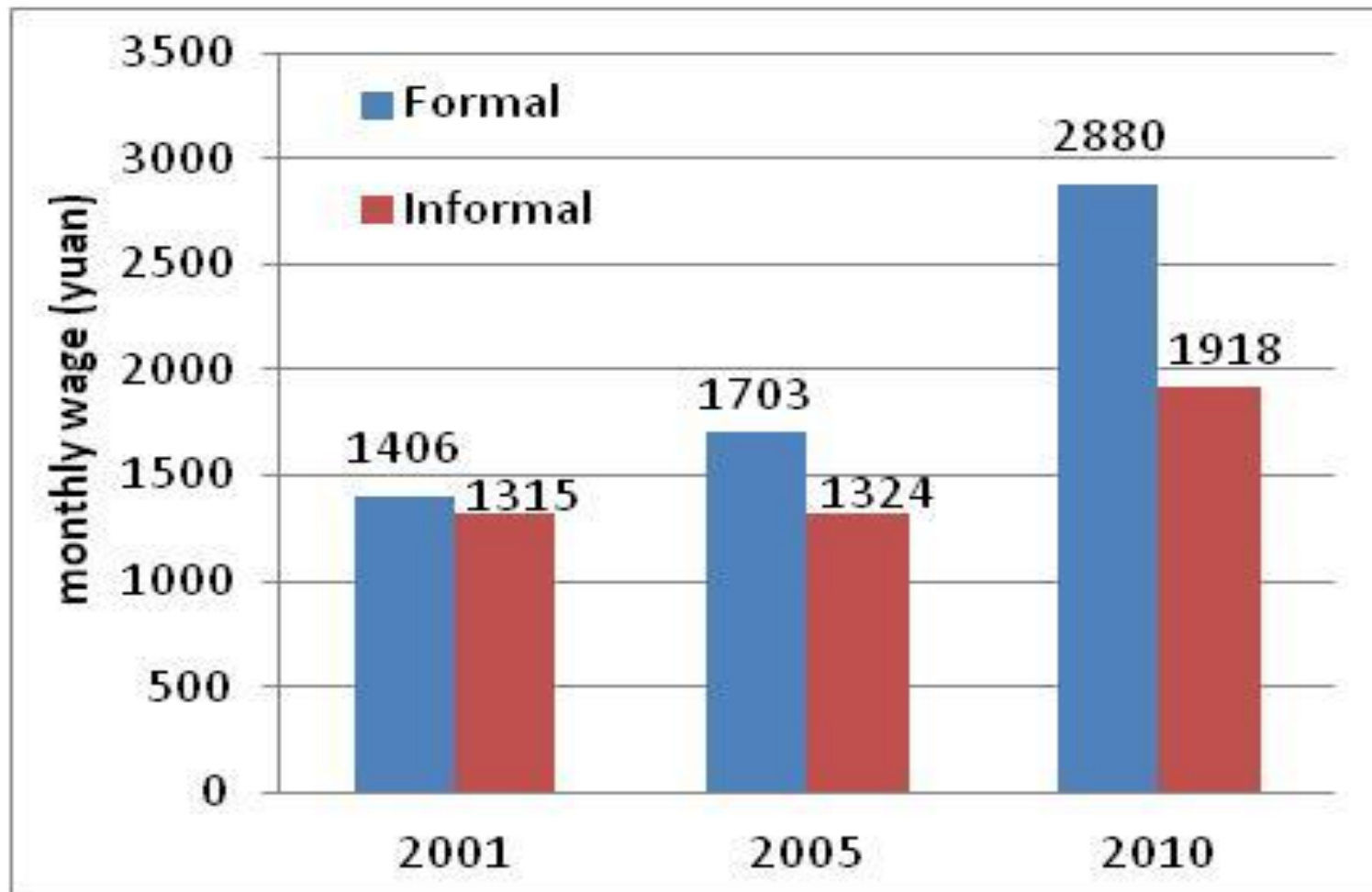


Source: CASS: CULS 2010.

3. Informal employment and income inequality

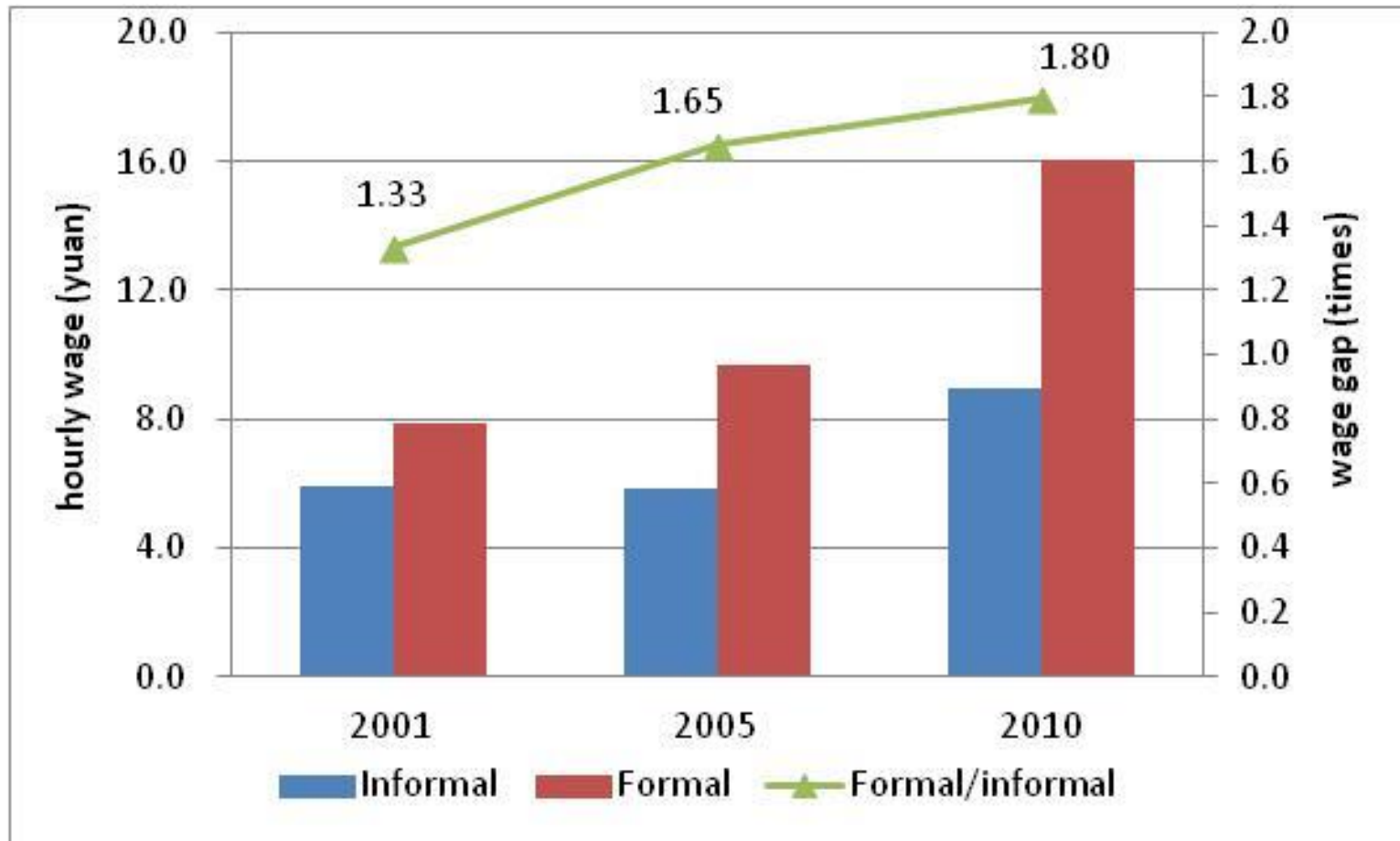
- Wage gap between informal and formal workers
- Labor income inequality in urban China
- Decomposition of wage inequality by groups
- The findings of the decomposition

Informal workers earn far less than formal workers



Source: CASS: CULS 2001, 2005 and 2010.

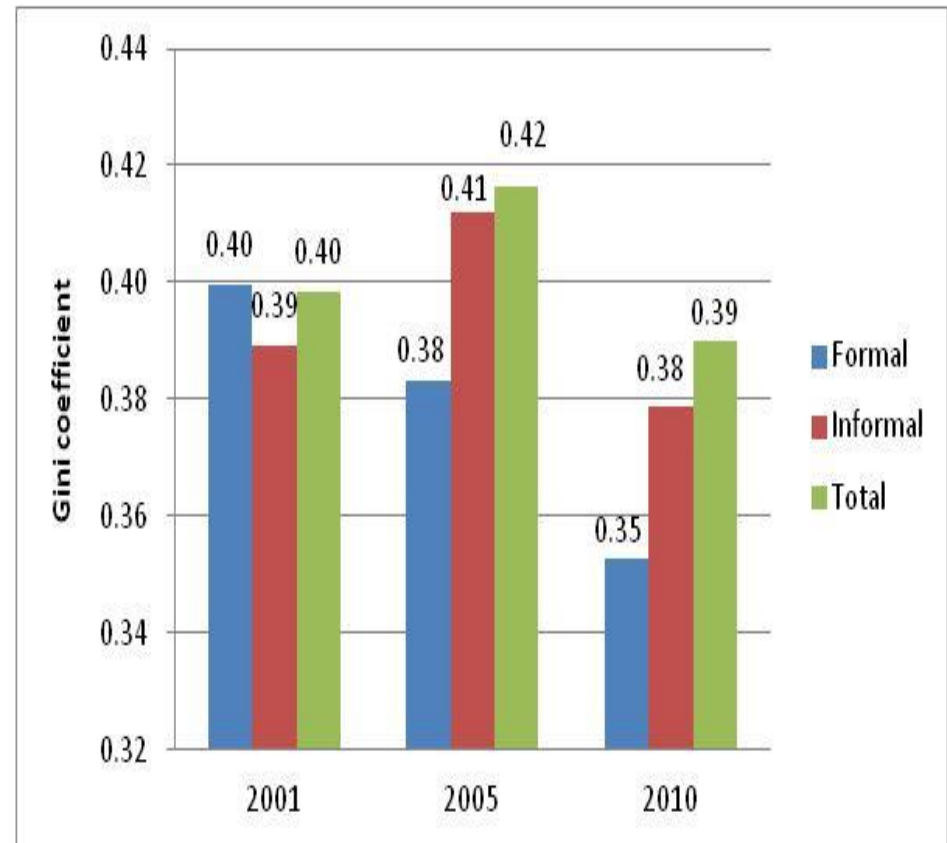
The wage gap between formal and informal employment



Source: CASS: CULS 2001, 2005 and 2010.

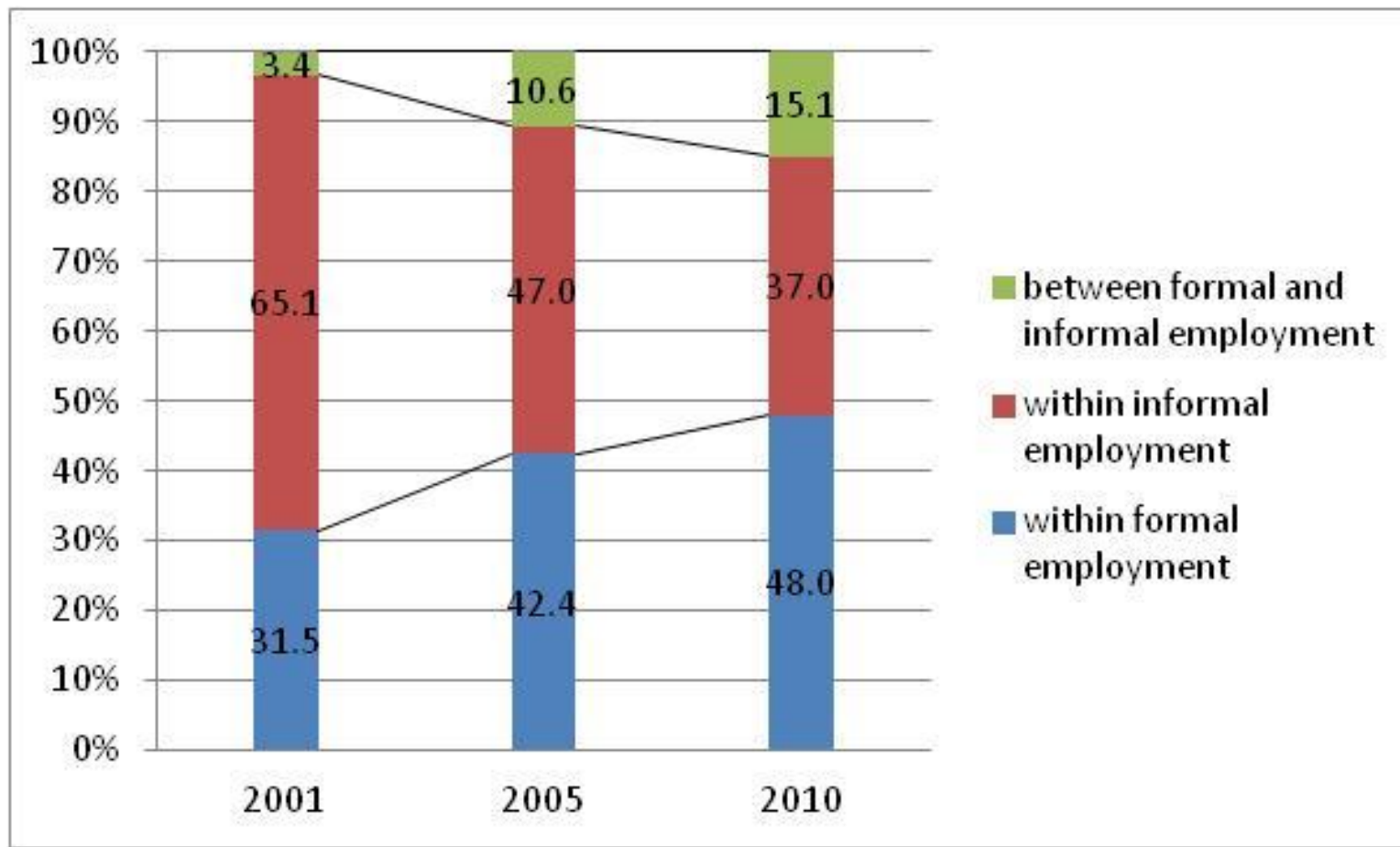
Labor income inequality in urban China

- The inequality is high, with Gini around 0.40
 - Decreased in recent years
- Informal employment is usually much unequal
 - Especially true recent years
- The inequality in formal employment is usually lower and becomes better
 - Gini , from 0.39 to 0.38, 0.35



Source: CASS: CULS 2001, 2005 and 2010.

Decomposition of wage inequality by formal and informal groups (Theil index)



Source: CASS: CULS 2001, 2005 and 2010.

The findings of the decomposition

- Informal employment is an important contributor to total inequality
 - Explains 65%, 47%, 37% in 2001, 2005 and 2010
 - Fortunately, it continues to decrease
- Formal employment gradually becomes the most important contributor
 - Explains 32%, 42%, 48% in 2001, 2005 and 2010
 - It's good for decreasing the inequality since formal employment is much equal
- The between effect boards the stage
 - From 3.4% in 2001, to 15.1% in 2010
 - Narrowing the wage gap between informal and formal employment becomes an important issue

5. The determinants of the wage and wage differentials

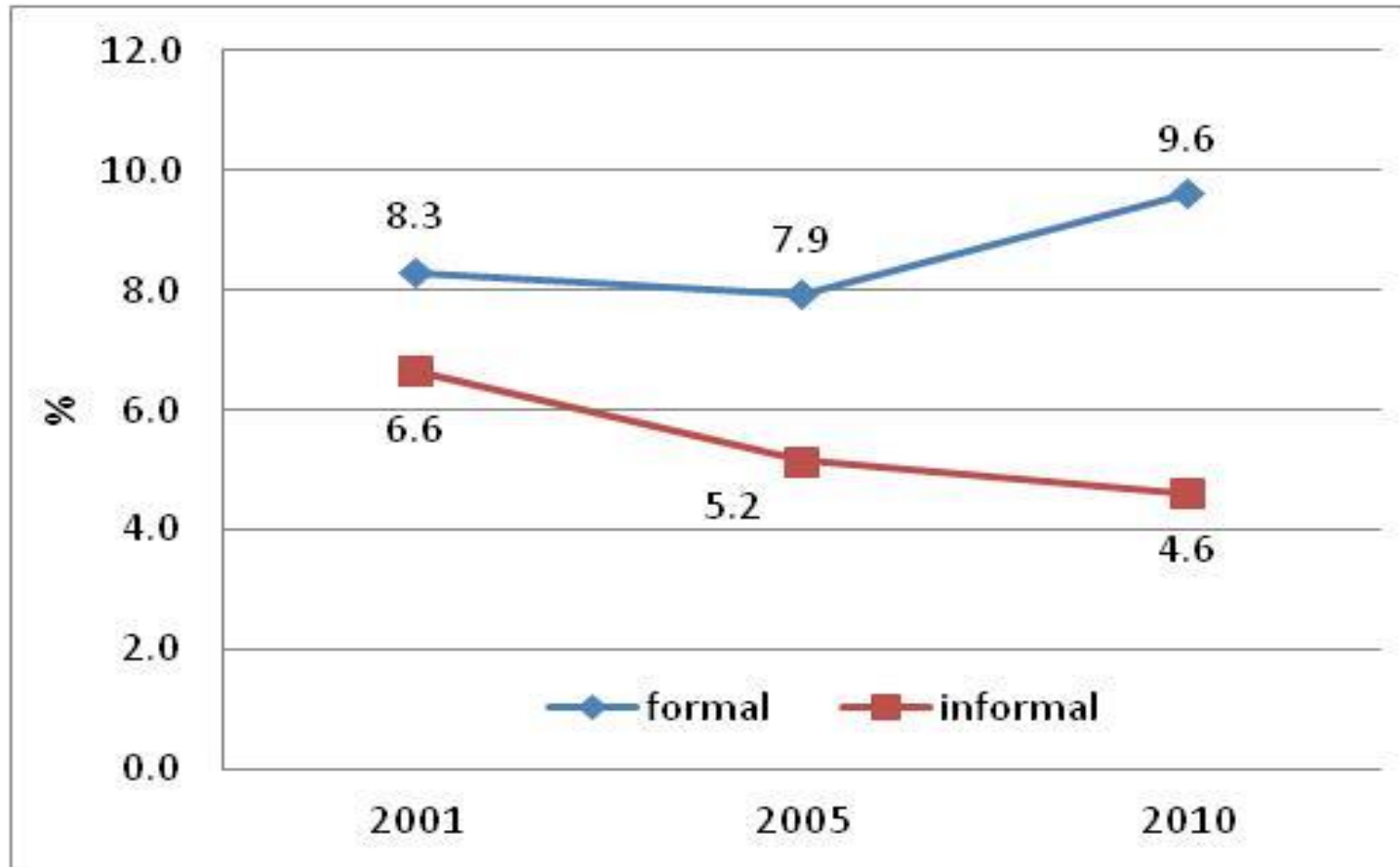
- The determinants of the wages for formal and informal workers
- The changes of the return to education
- Informal-Formal wage differentials:
Blinder-Oaxaca decomposition

The determinants of the wages for formal and informal workers

	2001		2005		2010	
	Formal	Informal	Formal	Informal	Formal	Informal
Education	0.0830***	0.0664***	0.0793***	0.0515***	0.0961***	0.0462***
Experience	-0.0046	-0.0018	-0.0036	0.0091**	0.0102***	0.0066**
Experience ²	0.0002*	0.0001	0.0000	-0.0003***	-0.0002**	-0.0003***
Male	0.1527***	0.1372***	0.2029***	0.1514***	0.1658***	0.1641***
Married	0.0127	0.0542*	0.0446	-0.1563***	0.0782***	0.1407***
Rural hukou	-0.3028***	-0.1202***	-0.3210***	-0.1782***	-0.0851***	-0.0756***
Constant	0.7222***	0.7959***	1.0666***	1.2014***	1.2843***	1.6754***
Unit	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes
City	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1772	3891	2066	3959	3723	4513
F value	56.35***	82.35***	76.38***	90.62***	87.63***	94.96***
Adjusted R ²	0.3963	0.3190	0.4339	0.3425	0.3487	0.3273

Notes: Dependent variable is the logarithm of hourly wage. ***(**)* denotes statistical significance at 1%(5%)(10%).

The changes of the return to education



Source: CASS: CULS 2001, 2005 and 2010.

Informal-Formal wage differentials: Blinder-Oaxaca decomposition

	2001	2005	2010
Total difference	100	100	100
Endowment difference	42.23	53.04	52.10
Education	16.35	17.10	17.68
Experience	0.90	-1.52	2.17
Male	-3.85	1.56	1.31
Married	0.37	-1.38	-0.53
Rural hukou	12.98	12.07	3.63
.....
Coefficient difference	62.19	49.18	42.23

Source: CASS: CULS 2001, 2005 and 2010.

Narrowing the informal-formal wage gap

- Improving the education of the informal workers
 - Boosting rural education and poor people
 - Training programs
- Reducing the labor market discrimination to informal workers
 - Hukou discrimination
 - Gender discrimination
 -

6. Who tends to be informal workers: Dprobit model (marginal effect)

	2001	2005	2010
Migrant	0.0684***	0.1715***	0.2651***
Education	-0.0186***	-0.0122***	-0.0372***
age	-0.0053***	-0.0044***	-0.0011***
Male	-0.0125***	-0.0493***	-0.0366***
Married	-0.0235***	-0.1402***	-0.0476***
Rural hukou	0.1270***	0.1935***	0.0162***
Unit	Yes	Yes	Yes
Industry	Yes	Yes	Yes
City	Yes	Yes	Yes
Observations	6530	7130	9011
Prob > chi2	0.0000	0.0000	0.0000
Pseudo R2	0.5252	0.5218	0.3639

Getting out of informal employment

- Migrant support measurement
 - Training, social capital accumulation
- Education improvement
- Reducing Hukou discrimination

7. Conclusion

- Informal employment accounts for a big share of the total employment in urban China, but decreased
- Informal workers work overtime but earn less
- Informal employment is an important contributor to total inequality
- The informal-formal wage gap contributes more and more to total disparity

7. Conclusion (count.)

- Low education and labor market discrimination mainly lead to the informal-formal wage gap
- Migrants and rural hukou holders tend to be informal workers
- Education can significantly reduce the probability of engaging in informal employment

Comments & Questions

Thanks!