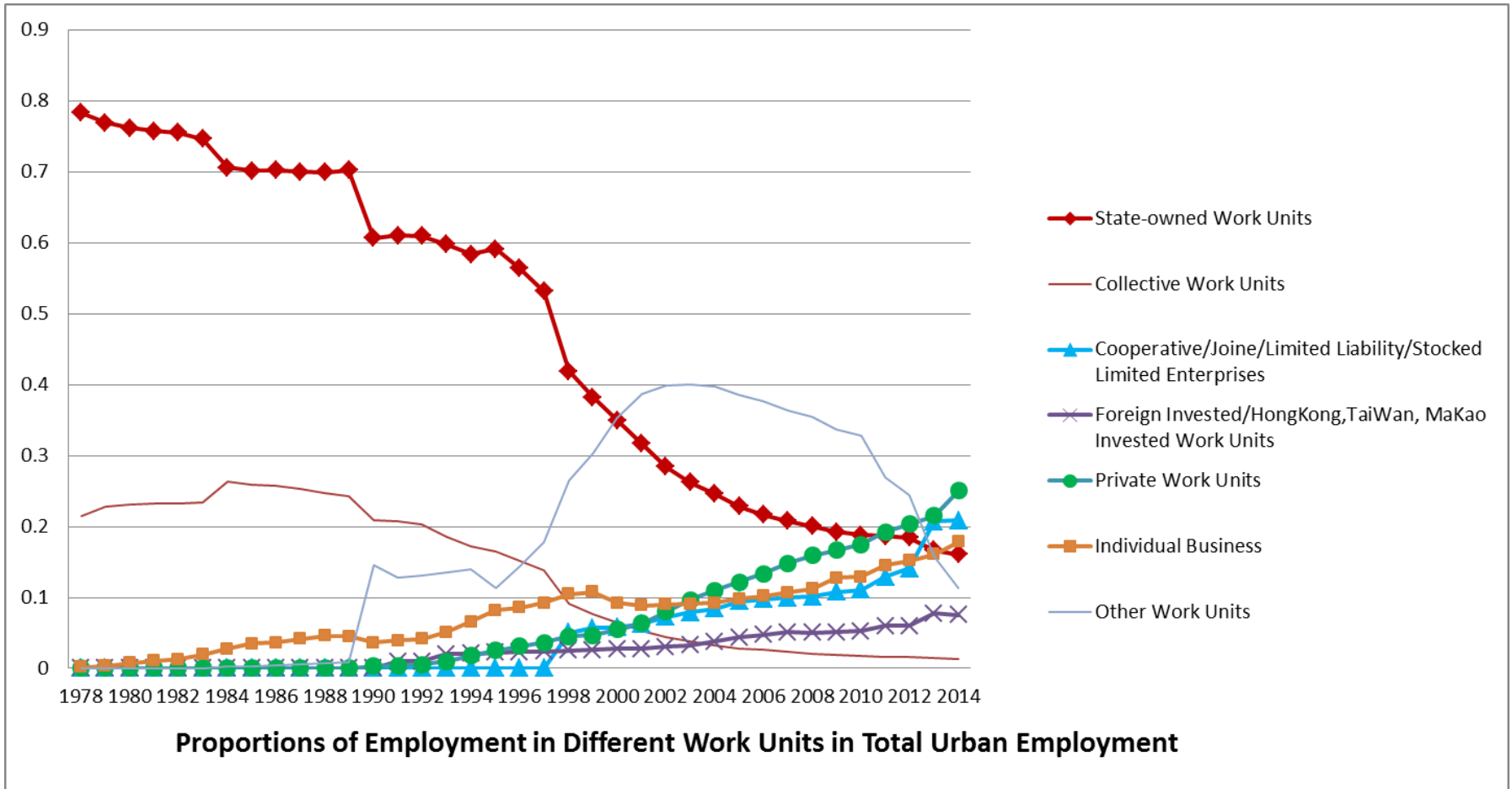


What Could Iron Rice Bowl Bring:
Economic Sectors and Employee Benefits in
Contemporary Urban China

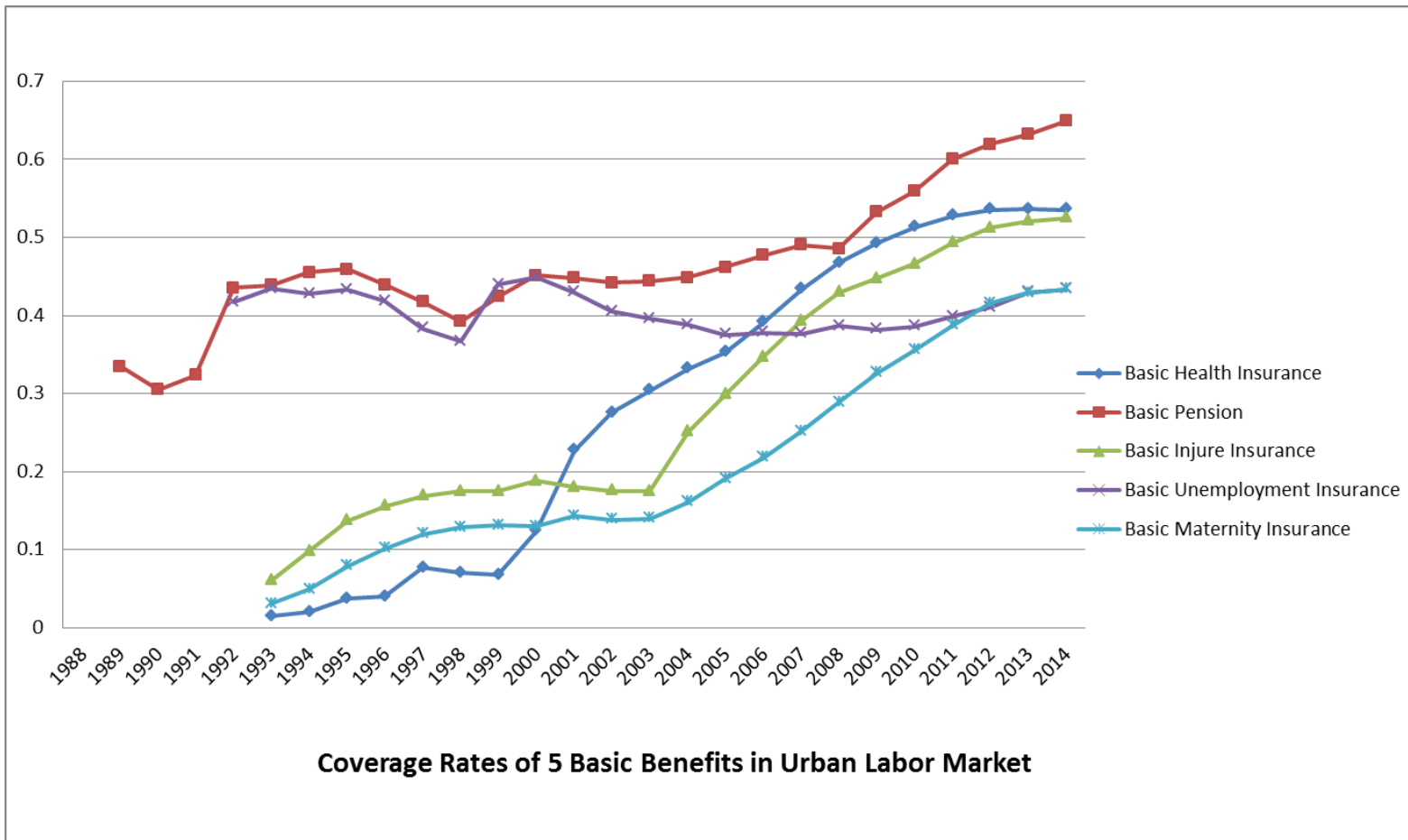
Mengjie Lu
Center for Social Research
Peking University

Background and Motivation

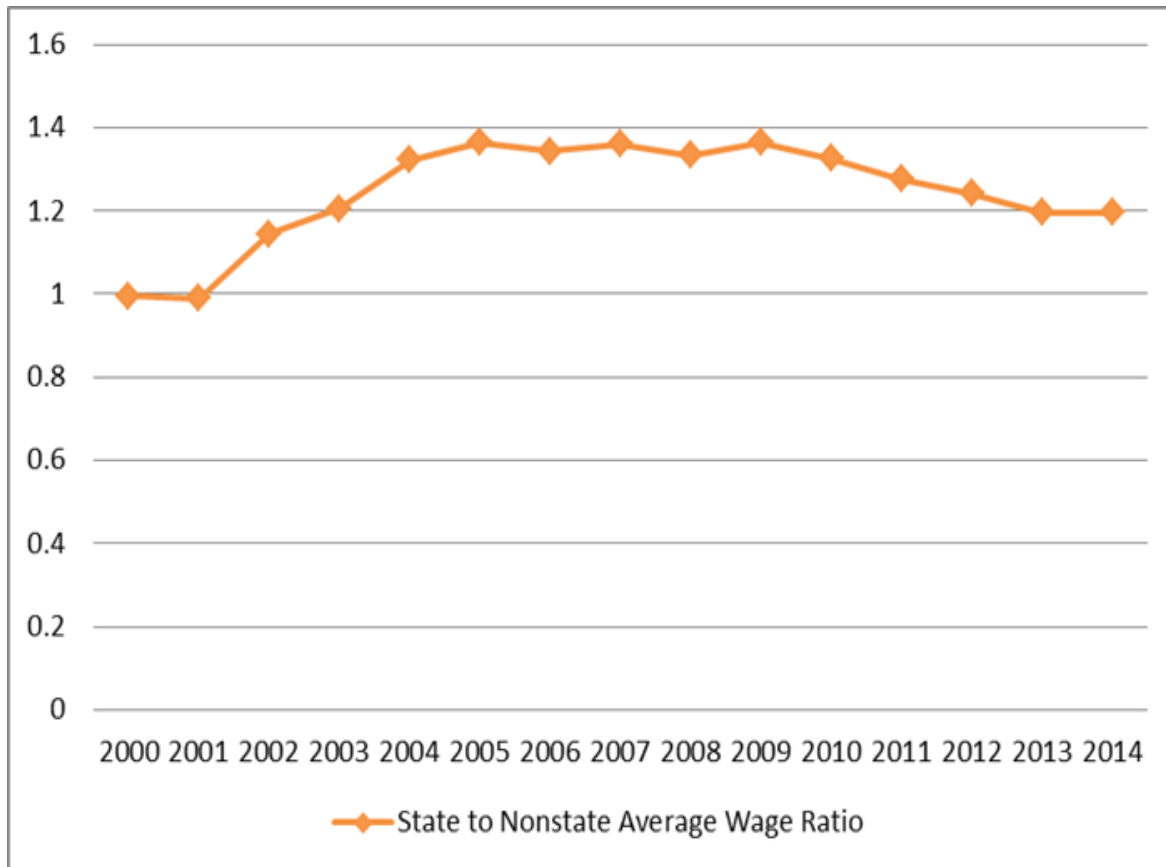
- Changing structure of labor market in Urban China



- Changing compensation structure provided by work units, and emerging inequality in benefits.



- Ongoing income and distribution reform since 2010s, and continuing heated competition to get a job opportunity within state sector.



Existing Research

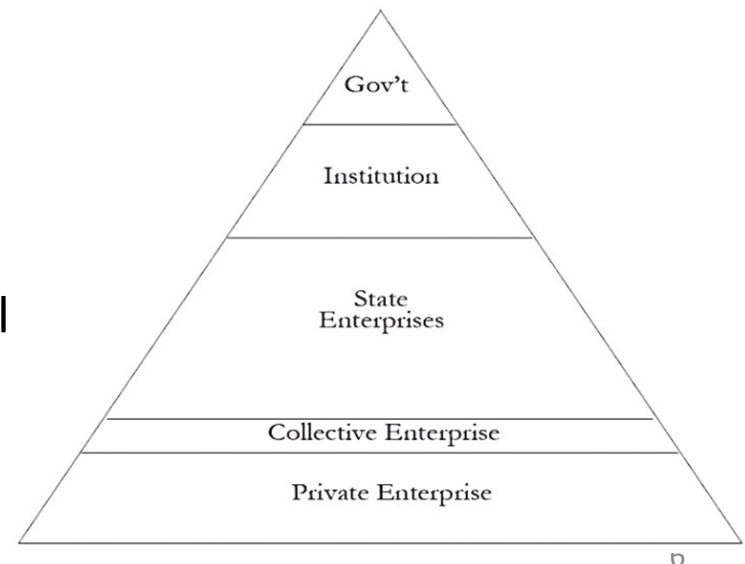
- Income premium caused by sector or nature of the work units:
 - Although there is a rise in returns to private/hybrid firms in the reform era, institutional persistence still exists in returns to danwei hierarchy (Bian & Logan, 1996; Zhou, 2000);
 - Period 1989-1997 witnesses a negative return to public sector, while period 2000-2006 sees a positive return (Yin & Gan, 2009);
 - There is a positive return to state sector from 1988 to 2007, and the return rises sharply in 2007 (Xia et al., 2012);
 - Workers in the state sector enjoyed higher income in 2004 (Wu, 2013);
- ...
- Benefits gap between different sectors:
 - Worker in the private and collective sector has lower medical care and pension (Xie, Lai and Wu, 2009);
 - State sector could bring more supplemental medical insurance, pension and total benefits (Wu, 2013).

Research Question

- Do sector premiums still exist during the contemporary income and distribution reform era in urban China?
- Which kind of premium could iron rice bowl bring in contemporary urban China?
 - Wage rates
 - Income
 - Basic fringe benefits
(number of basic benefits & number of insurance benefits)
 - Working time
- Is there a systematic heterogeneity in influences of state sector towards different workers? Will workers with higher propensity to enter the state sector enjoy higher wage or benefits premium?

Data and Methods

- Data:
 - China Family Panel Studies (2012)
- Sample define:
 - Full time employees aged from 18 to 55 working in urban China.
- Treatment variable formation:
 - Whether employed in the state-owned work units, including government, public institutions and state owned enterprises.
- Methods:
 - OLS and Poisson Regression
 - Propensity Score Matching
 - Heterogeneous Treatment Effect Model



Basic Description

	Total Sample (N=3398)		State Owned (N=1070)		Non State Owned (N=2328)	
	Mean	Sd	Mean	Sd	Mean	Sd
Mean (S.D.)						
Annual income	30108	37200	33116	27337	28827	40615
Annual Income from Main Job	28024	28725	32202	26882	26245	29300
Hour Wage Rates	11.19	12.06	13.98	12.1	9.99	11.84
Working Hours	8.92	1.78	8.48	1.65	9.12	1.81
Number of Basic Benefits	2.41	2.44	4.05	2.02	1.72	2.27
Number of Insurance Benefits	2.56	2.58	4.38	2.16	1.78	2.34
Age	35.4	9.34	37.96	8.66	34.32	9.41
Years of Schooling	10.89	4	13	3.54	10	3.85
Working Experiences	6.72	7.62	10.81	8.94	4.96	6.22
Age of Entry	28.7	8.82	27.15	8.59	29.35	8.84

	Total Sample (N=3398)	Stated Owned (N=1070)	Non State Owned (N=2328)
Percentage (%)			
Basic Pension	50.52	80.27	37.85
Basic Medical Insurance	51.05	85.49	36.4
Injure Insurance	41.08	59.56	33.22
Unemployment Insurance	39.8	66.87	28.28
Maternity Insurance	28.53	45.92	21.13
Housing Fund	31.22	68.37	15.41
Supplemental Pension	3.94	6.98	2.65
Supplemental Medicare	10.64	26.29	3.98
Male	57.83	60.38	56.75
Educational Level			
Below Primary	4.49	2.23	5.45
Primary	11.95	4.18	15.25
Lower Secondary	29.74	15.01	36.01
Upper Secondary	24.1	24.26	24.04
Some College	16.52	25.66	12.63
University and Above	13.2	28.66	6.62
CPC Member	13.52	29.71	6.63
Parental Educational Level			
Below Primary	20.23	16.09	21.99
Primary	28.47	28.03	28.66
Lower Secondary	26.35	20.87	28.68
Upper Secondary	19.61	25.15	17.25
Some College	3.29	5.29	2.44
University and Above	2.05	4.56	0.98
Parent is CPC Member	24.15	35.78	19.2

Basic OLS and Poisson Regression Results

	Model 1	Model 2		Model 1	Model 2
<i>Total Annual Income (log)</i>			<i>Day Work Hours (log)</i>		
State Sector	0.247*** (0.398)	-0.062 (0.046)	State Sector	-0.068*** (0.008)	-0.031*** (0.009)
Control Variables	No	Yes	Control Variables	No	Yes
<i>Main Job Annual Income (log)</i>			<i>Total Number of Basic Benefits</i>		
State Sector	0.298*** (0.040)	-0.012 (0.046)	State Sector	0.858*** (0.043)	0.463*** (0.049)
Control Variables	No	Yes	Control Variables	No	Yes
<i>Main Job Hour Wage Rate (log)</i>			<i>Total Number of Insurance Benefits</i>		
State Sector	0.456*** (0.042)	0.067 (0.047)	State Sector	0.899*** (0.043)	0.491*** (0.048)
Control Variables	No	Yes	Control Variables	No	Yes

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. The coefficients for other control variables (education, gender, age, experience, experience square and region) are omitted to conserve space.

PSM Results

- Probit regression about whether enter the state sector

Variables	Coefficients	S.D	Significance
Female	-0.040	(0.053)	
Urban Hukou When 12	0.464	(0.231)	*
Age	0.056	(0.005)	***
Age at Entry	-0.044	(0.004)	***
Educational Level			
Primary	-0.501	(0.463)	
Lower Secondary	0.028	(0.140)	
Upper Secondary	0.405	(0.144)	**
Some College	0.762	(0.151)	***
University and Above	1.597	(0.417)	***
CPC Member	0.570	(0.075)	***
Parental Educational Level			
Primary	0.044	(0.080)	
Lower Secondary	0.068	(0.087)	
Upper Secondary	0.225	(0.095)	*
Some College	0.037	(0.156)	
University and Above	0.133	(0.174)	
Parent is CPC Member	0.125	(0.061)	*
Region	YES		
Constant	-2.128	(0.235)	***
LR chi2 (23)	1053.93		
P>chi2	0.000		

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Interaction terms are also included in the probit model to obtain balanced propensity score.

PSM Results

- Average treatment effects of being employed in the state sector

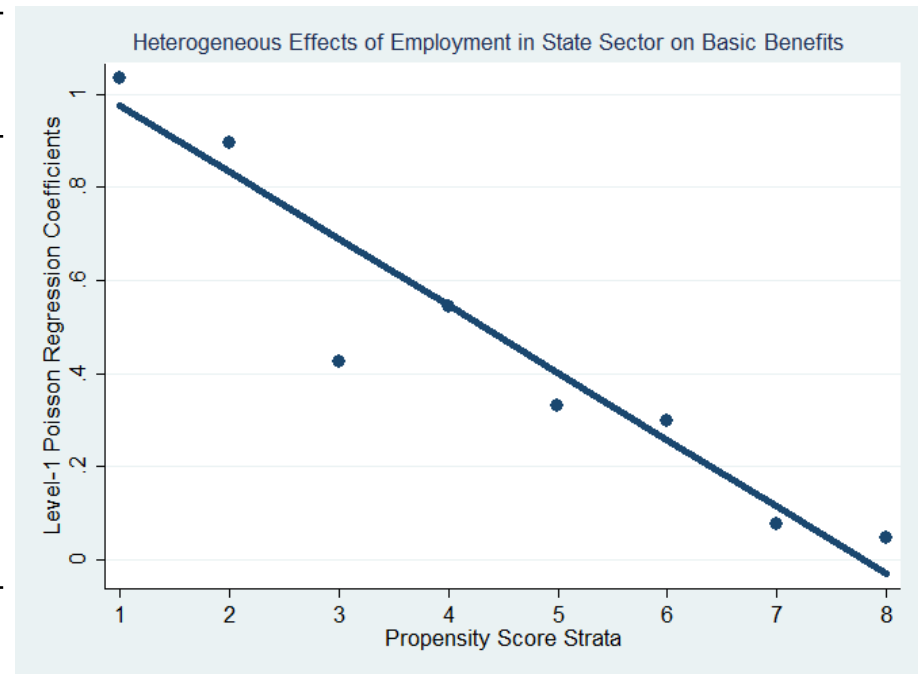
	ATE	p-Value
<i>Total Annual Income (log)</i>	-0.031	0.509
<i>Main Job Annual Income (log)</i>	-0.040	0.357
<i>Main Job Hour Wage Rate (log)</i>	0.039	0.384
<i>Day Work Hours (log)</i>	-0.034***	0.000
<i>Total Number of Basic Benefits</i>	0.960***	0.000
<i>Total Number of Insurance Benefits</i>	1.064***	0.000

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Results of Heterogeneous Treatment Effect Model

-Total Number of Basic Benefits

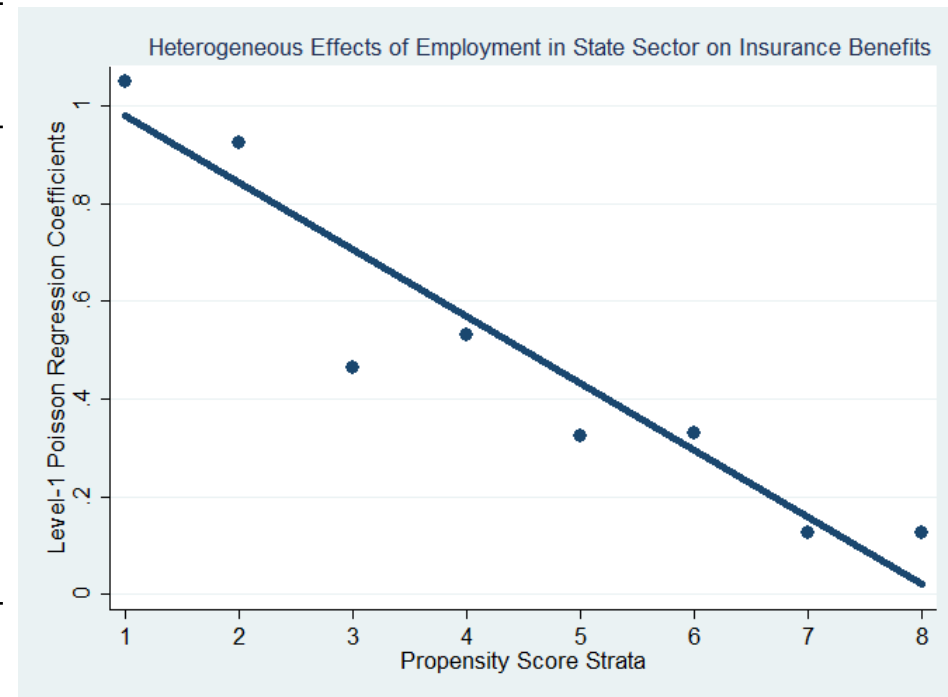
Level-1 Slopes (Poisson Regression)	Coefficient	S.D.	Significance	Incidence Rate Ratio
Stratum 1	1.065	(0.161)	***	2.901
Stratum 2	0.935	(0.122)	***	2.547
Stratum 3	0.434	(0.204)	*	1.543
Stratum 4	0.679	(0.156)	***	1.972
Stratum 5	0.336	(0.121)	**	1.399
Stratum 6	0.307	(0.083)	***	1.359
Stratum 7	0.077	(0.077)		1.080
Stratum 8	0.037	(0.126)		1.038
Level-2 Slope (VWLS)	-0.144	(0.019)	***	



Results of Heterogeneous Treatment Effect Model

-Total Number of Insurance Benefits

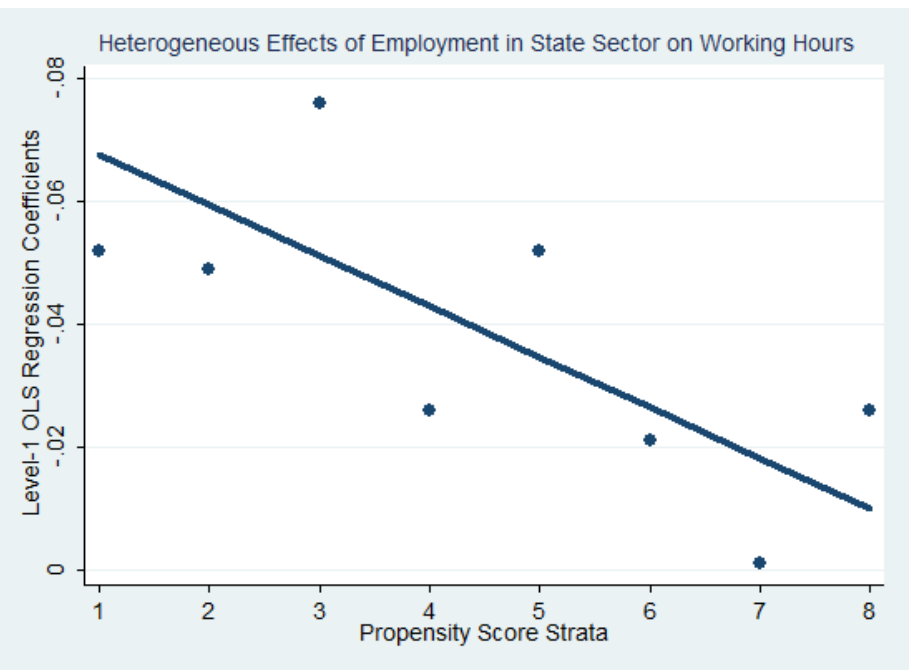
Level-1 Slopes (Poisson Regression)	Coefficient	S.D.	Significance	Incidence Rate Ratio
Stratum 1	1.079	(0.167)	***	2.942
Stratum 2	0.967	(0.119)	***	2.630
Stratum 3	0.470	(0.204)	*	1.600
Stratum 4	0.672	(0.151)	***	1.958
Stratum 5	0.331	(0.121)	**	1.392
Stratum 6	0.334	(0.083)	***	1.386
Stratum 7	0.126	(0.077)		1.134
Stratum 8	0.121	(0.123)		1.129
Level-2 Slope (VWLS)	-0.137	(0.019)	***	



Results of Heterogeneous Treatment Effect Model

-Day working hours

Level-1 Slopes (OLS Regression)	Coefficient	S.D.	Significance
Stratum 1	-0.052	(0.023)	*
Stratum 2	-0.049	(0.020)	*
Stratum 3	-0.076	(0.019)	***
Stratum 4	-0.026	(0.026)	
Stratum 5	-0.052	(0.016)	**
Stratum 6	-0.021	(0.023)	
Stratum 7	-0.001	(0.017)	
Stratum 8	-0.026	(0.033)	
Level-2 Slope (VWLS)	0.008	(0.003)	*



Conclusion and Discussion

- Premiums for employees working in state owned work units still exist in contemporary urban China.
- The premiums mainly exist on employee benefits and working hours, rather than income or wage rates.
- Effects of obtaining an iron rice bowl vary across employees in urban labor market.
 - Employees who are less likely to enter the state sector benefit more on fringe benefits and working time from the iron rice bowl, which means a negative selection.
- These findings could reflect situation in a short recent period of the long economic reform era. As the distribution reform deepens we may observe further changes on the effects of iron rice bowl with panel data.

Thank you!