SPECIAL ISSUE: MI GRANT WORKERS IN THE COURSE OF URBANIZATON

Wages for migrant workers in the Pearl River Delta: determining factors[1]

Liu Linping[a] *and* Zhang Chunni[b]

[a] *Department of Sociology and Social Work, Sun Yat-sen University*

[b] *Department of Sociology, Peking University*

本文通过对珠江三角洲农民工问卷调查资料的回归分析，试图检验在市场转型下的企业制度和社会环境对农民工工资的影响。研究发现，人力资本中的教育年限、本企业工龄等变量对农民工工资有显著的正向影响，年龄和性别也有显著影响；企业制度中的工种对工资有显著影响，表现出明显的等级性。企业所属行业、规模和企业性质对工资没有显著影响，是否签订劳动合同和缺工情况同样如此。社会资本变量和社会环境变量对农民工工资水平没有显著影响。文章由此认为，农民工的工资是处于分割的二元劳动力市场一端，是高度市场化的，缺乏企业内部劳动力市场或晋升机制，也少受劳动力市场用工情况变化影响，没有地区性差异，是一个实实在在的、刚性的低工资。

关键词：农民工　工资　人力资本　社会资本　企业制度　社会环境

This article attempts to examine the effect of the enterprise system and social environment under conditions of market transition on the wages of migrant workers using regression analysis of Pearl River Delta migrant worker survey data. The research found that among human capital variables, educational level and length of employment in their present firms have a significant positive effect on the wages of migrant workers, while age and gender also have a significant effect; among enterprise system variables, the type of work also significantly influences wages, demonstrating clear stratification. Industry, scale and firm type do not significantly influence wages, regardless of labor contract or labor supply status. Social capital variables and social environmental factors do not have a significant effect on peasant-worker wage levels. The article therefore concludes that migrant worker wages are highly marketized and are at one extreme of a segmented dual labor market. They lack intra-firm labor markets and promotion mechanisms, are little influenced by changes in labor market

---

conditions, and show no regional variations. They represent low wages of an extreme rigidity.

Keywords: peasant-worker, wages, human capital, social capital, enterprise system, social environment

I. Literature review and research hypotheses

In Marx's view, wages were a manifestation of the value of labor power. He pointed out: "The value of the labouring power is formed by two elements – the one merely physical, the other historical or social." Regarding the second element, he argued, "...the value of labour is in every country determined by a traditional standard of life. It is not mere physical life, but it is the satisfaction of certain wants springing from the social conditions in which people are placed and reared up."[2]

Marx placed the wages earned by workers within the basic socio-economic structure of capitalism, though the wages of workers also depended upon the struggle against capitalists. However, in his view, wages and the productivity of labor did not have a functional relationship, nor did they have a strong relationship with changes in labor market supply and demand relations.

The appearance of the theory of human capital may be viewed as a challenge to Marx's classical theory of capital. The theory of human capital stresses people's capacity to invest in themselves and generate an economic return. Human capital theory takes the inquiry into the factors influencing wages from the comparatively macro socio-economic level to the comparatively micro-level of individual investments and labor market outcomes. Mincer pointed out that the core of human capital theory is concerned with the effect of formal and informal education and family education as well as training, experience and occupational mobility on individual labor market outcomes and sectoral and national economic growth. Therefore, in the view of human capital theory, the factors primarily influencing wages are micro-level ones such as education, training, labor experience and occupational mobility.[3]

Relying only on human capital theory is not sufficient to explain complex wage phenomena. Gerber summarized the three major theoretical perspectives determining wages: neo-classical theory, institutionalism and structural analysis. Human capital theory proceeds from a neoclassical perspective in which wages are set in an open labor market. In contrast to neo-classicism, the institutionalist perspective considers the transaction costs of job search and hiring, the nature of the firm's internal work, uncertainty about worker capabilities and morale, the influence of unions and the collective action of workers that hinder the full play of the market mechanism. Therefore, wages are determined by institutions rather than markets; these institutions include internal labor markets, collective bargaining, and standard wage packages. Structural analysis shifts attention from the individual qualities of workers to their position in the social structure and its properties. This perspective pays more attention to the systemic

---

2 Marx, "Wages, prices and profits," Chinese edition, pp. 181, 199.
3 Mincer, "Human capital and the labor market: a review of current research."

variables determining wages such as work and employer category. In the view of structuralists, the professional status of work, industry and sectors, and company size are the key variables determining wages. The perspective of structural analysis and institutional theory are linked, but are at the same time different.[4] These differences are manifested by structural analysis stressing wage differences across sectors, organizations, and occupations generated by institutional system variables, rather than institutional differences with respect to personal traits. Gerber found in researching Russian wage arrears that the individual qualities of workers and their human capital did not have a significant effect on the distribution of wages, while employment sector, firm type and size of firm locale were significant variables affecting wage distribution.

If the theory of human capital puts forward only micro-factors determining wages, institutional theory, starting from the organization level, amends its invalid hypotheses of free and open markets; and structural analysis, through its focus on the structural restrictions upon human activities, again places the focus of analysis on the macro-level of social structure, and points to the influence of social capital, institutional factors and social environment factors upon labor market outcomes.

Social capital theory is concerned with the market return on the public's investment in the construction of social networks. The effect of social capital on the wages of workers is complex:[5] empirically, social networks or social capital allow people to obtain resources and raise their socio-economic status. For wage earners, investment in and use of social relations is supposed to bring about higher market returns. On the other hand, empirical research demonstrates that people who use social networks or social capital to find work are not necessarily able to obtain higher wages.[6]

The perspective of social capital touches upon social structure, but the social structure built through interpersonal networks is mostly informal; it must be acknowledged that the influence of formal social institutions on wages far exceeds that of informal ones.

If one proceeds to investigate the question of wages from the institutionalist perspective, the organizational structure of firms, and particularly whether they have a complete internal labor market, is a significant factor influencing wages. Williamson's analysis of the relationship between the internal labor market and workers' human capital shows that employees with specialized skills hold a privileged position in the firm's internal labor market.[7] The hiring institutions of firms, including in a developed society such as the United States, increasingly rely upon temporary and part-time workers, significantly influencing the wages of workers.[8]

Enterprise systems have a significant effect on wages; however, any enterprise system exists within the greater social structure or social environment. Many scholars study the issue of wages and income within the framework of social inequality; they view wages as a clear manifestation

---

4 Gerber, "Getting paid: wage arrears and stratification in Russia," p. 1832.

5 Lin Nan, *Social capital: a theory of social structure and action*.

6 Korenman and Turner, "Employment contacts and minority-white wage differences"; Doug Staiger, *The effect of connections on the wages and mobility of young workers*.

7 Oliver Williamson, *et al.*, "Understanding the employment relation: the analysis of idiosyncratic exchange."

8 Harrison and Bluestone, *The great U-turn: corporate restructuring and the polarizing of America*.

of social stratification and social inequality.[9] In Western society, race and gender are all important variables influencing wages.[10]

The research focus of this paper is the issue of the wages of migrant workers (*nongmin gong*, or literally, peasant-workers). Typical wage theory and empirical models cannot be directly applied to the issue of Chinese migrant workers' wages. Neo-classical theory and institutional theory are more suited to explaining wages earned by workers in stable industries and white-collar workers, but may be over simplistic in explaining the wages of migrant workers, who are a class of workers with Chinese characteristics unlike regular industrial workers in the West.

How is migrant workers' wage level determined? According to Lewis, the wages of migrant workers are determined relative to the agricultural income level; they are of course higher than the subsistence rural income mainly because living expenses in the cities exceed those in the countryside, and because of such factors as the need to compensate for psychological costs of migrating to the cities.[11]

Philip Huang applies Lewis's perspective to the situation of migrant workers. In his view, "the low wages of agricultural labor and the low wages paid by rural firms is the basic cause for the relatively low wages of peasant labor away from the countryside."[12]

Lewis's theory and Philip Huang's view refer to the effect of the socio-economic environment on the migration of rural labor and the wages of migrant workers. Furthermore, in China's socio-economic environment, government policy is one of the important elements, and the policy most relevant to the wages of migrant workers is the minimum wage. Yet our research indicates that the effect of the minimum wage on the adjustment of migrant worker wages is extremely small.[13] Of course, with the passage of time this interpretation may need reexamination.

Researchers have pointed out that Chinese migrant workers differ from city residents in that they exist in a dual labor market that is separated between cities and countryside, which is also a fundamental aspect of China's transitional society as well as the basic institutional environment faced by migrant workers.[14] Thus, the question posed by this paper is as follows: in this type of dual labor market, what factors or variables primarily determine the wages of migrant workers? Or as follows: how do China's socio-economic environment and the firm structure formed within a dual labor market influence the wages of migrant workers?

As summarized above, neo-classicism stresses the important role of human capital in wages, institutional theory raises the importance of enterprise systems, and structural analysis points to the necessity of considering social capital and socio-economic factors in researching wages. Therefore, in our view, the determining variables of migrant workers' wages comprise at least the four components of human capital, social capital, enterprise systems and the social environment

---

9   Xie Yu, "Regional differences in income inequality of urban residents in China."
10   Blau & Kahn, "Gender differences in pay."
11   Lewis, *Theory of the dual economy*.
12   Philiip Huang, "Institutionalized 'semi-industrial, semi-rural' agricultural involution (Part I), p. 32.
13   Liu Linping, *et al.*, "Institutional and labor shortages – researching the 'migrant worker shortage' issue."
14   Li Chunling, "The non-institutional path taken by migrant workers – a comparison between migrant labor and non-migrant labor."

(The variables are listed in Table 1).

Table 1 Independent variables determining migrant workers' wages

Independent variables		Dependent variable: average monthly wage	
		Correlation coefficient	Value
Human capital	Age	Pearsons' R	.049
	Sex	eta	.228
	Educational level	eta	.322
	Professional certification	Pearsons' R	.209
	Length of employment — Total Length of employment	Pearsons' R	.202
	Length of employment — Length of employment in present firm	Pearsons' R	.173
	Professional training since 2005	Eta	.114
	Number of job changes (number of turnovers)	Pearsons' R	.131
	Knowledge of labor law	Eta	.205
Social capital	Union participation	Eta	.125
	Hospitality and gift expenses Use of networks to raise wages	Pearsons' R Eta	.300 .025
Enterprise systems	Ownership form	Eta	.078
	Scale	Eta	.098
	Industry	Eta	.254
	Work category	Eta	.466
	Labor contract	Eta	.134
	Labor shortage in firm	Eta	.025
Social environment	Geographical origin	Eta	.187
	Firm location	Eta	.127
	Agricultural income to wage ratio	Pearsons' R	.011
	Personal living expenses	Pearsons' R	.498

The research objective of this paper is to examine the effect of China's transitional environment and the enterprise systems formed within this environment on migrant workers' wages. Thus, the effect of enterprise systems and social environment is the focus of our research, while human capital and social capital variables should serve as control variables to be placed in the model. Therefore, this paper puts forward the below hypotheses:

Hypothesis 1: Enterprise system hypothesis. Wage levels of migrant workers are related to enterprise systems, with wage standards varying across enterprise systems.

The enterprise system covers, the following: ownership form, scale, industry, work category of the firm, whether labor contracts have been signed between the firm and migrant workers, and

whether the firm is short of labor. Among these, the ownership form is the most basic institutional arrangement determining the firm management system, and is also the foundation and expression of the property rights system of the firm. Various property jurisdictions and cultural traditions influence the rights and security of workers, including the wages of workers. Firm size is also a highly significant variable, and firm size was chosen as a basic variable as it is an independent variable more likely to attain and determine other structural variables.[15] In addition, industry and work type also determines migrant workers' wages. Therefore, the following hypotheses are formulated:

Hypothesis 1a: Firm ownership influences wages of migrant workers: wages of migrant workers vary with firm types.

Hypothesis 1b: Firm size influences migrant workers' wages: migrant workers' wages increase with firm scale.

Hypothesis 1c: Industry category of the firm influences migrant workers' wages: migrant workers' wages varies across industries.

Hypothesis 1d: Work category in firm influences migrant workers' wages: migrant workers' wages vary across job categories.

The signing of labor contracts reflects to a certain extent the degree to which the firm complies with the labor law, and the process of signing labor contracts can also be considered as the procedure for the firm's negotiation of wage levels and benefits with migrant workers. Therefore, we have:

Hypothesis 1e: Wages of migrant workers who have signed contracts with firms are higher than those of migrant workers without signed contracts.

Whether the firm has a labor shortage is the main indicator for measuring labor market demand in a specific firm, and an important indicator for evaluating the enterprise system. Economic laws would indicate that labor shortages should bring higher wages for workers. Therefore, we have:

Hypothesis 1f: A firm's shortage of labor influences migrant workers' wages: migrant workers' wages are higher in firms that have a labor shortage.

Hypothesis 2: Social environment hypotheses: the wage level of migrant workers is associated with the socio-economic environment.

As migrant workers relocate to cities from the countryside, their "socio-economic environment" includes the city to which they have migrated and the countryside in which they resided prior to entering the city, and the contrast between them. Minimum wage standards vary across cities in which migrant workers are employed, as do the levels of socio-economic development. The personal consumption level reflects the wage level needed for the labor reproduction, and the consumption and economic development level of the city to which the migrant workers move. The minimum wage reflects the minimum wage as implemented by law, and is the most direct expression of government policy. Of course it is also an important indicator of the institutional environment. The geographical origin of migrant workers may also

---

15   W. Richard Scott, *Organizations: rational, natural, and open systems*, p. 244.

distinguish between their socio-economic environments prior to entering the city. Therefore, we have the following hypotheses:

Hypothesis 2a: Wage levels of migrant workers vary across their geographical origins.

Hypothesis 2b: Wage levels of migrant workers vary across cities in which they work.

Hypothesis 2c: Migrant workers' wages increase with personal living expenses.

The ratio of wage income to agricultural income influences the mobility of migrant labor and the expected wages. Mouw mentions that all individuals have an "expected wage," which is equivalent to the acceptable minimum wage; individuals will only accept wages higher than or equal to their "expected wage."[16] In observing wage levels in the city, migrant workers will consider their rural incomes, on the basis of which their expected wage is formed. The ratio of wage income to agricultural income is likely to be positively correlated with the wages of migrant workers. Migrant workers with lower ratios between wage income and agricultural income have lower expected income, so they are more likely to receive work for low salaries than migrant workers with higher expected income. Therefore we have:

Hypothesis 2d: Migrant workers' wages increase with the ratio between wage income and agricultural income.

II. Sample information, wage institutions, and wage levels

Table 2 Sample Information

Option	Frequency (%)
Cities	Guangzhou 415 (13.4%), Shenzhen 758 (24.6%), Zhuhai 194 (6.3%), Foshan 273 (8.8%), Zhaoqing 198 (6.4%), Dongguan 612 (19.8%), Huizhou 205 (6.6%), Zhongshan 199 (6.4%), Jiangmen 232 (7.5%)
Age	Aged under 25: 1,631 (52.8%), aged 26-30: 510 (16.5%), aged 31-35: 393 (12.7%), aged 36-40: 279 (9.1%), aged 41-45: 147 (4.8%), aged 46-50: 70 (2.3%), aged 51-55: 38 (1.3%), aged above 55: 16 (0.5%)
Sex	Male 1,639 (53.1%), female 1,447 (46.9%)
Education level	Elementary school and below: 571(18.5%), junior high school: 1,582 (51.3%), senior high school: 473 (15.3%), secondary vocational or technical school: 366 (11.9%), tertiary vocational level: 91 (2.9%), unknown: 2 (0.1%)
Marital status	Unmarried: 1,701 (55.1%), married: 1,342 (43.4%), divorced: 30 (1.0%), widowed: 12 (0.4%)
Certification	With certificate 637 (20.6%), without certificate 2,448 (79.3%)
Household size	4 people or below: 1,374 (44.5%), 5-9 people: 1,627 (52.7%), 10-15 people 77 (2.5%), 16 people and above: 6 (0.2%), unknown: 2 (0.1%)

From July to August, 2006, we carried out questionnaire survey of migrant workers in the Pearl River Delta region. The distribution of the sample was based on the proportion of the migrant

---

16   Ted Mouw, "Social capital and finding a job: do contacts matter?"

population to the total population in Pearl River Delta cities survey, controlled for industry, sex and regional distribution. 3,100 questionnaires were sent out and 3,086 valid responses received. The basic data are shown in Table 2:

The survey asked how respondents' wages were calculated. For results, see Table 3.

Table 3 Migrant workers' wages calculation method

Wage calculation method	Frequency	%
Piecework	581	18.8
Time-based	593	19.2
Commission	146	4.7
Daily	283	9.2
Monthly	1360	44.1
Piecework and time-based	79	2.6
Basic salary and commission	100	3.2
Other	5	0.2
Unknown	13	0.4

Table 3 shows that less than one-half of all migrant workers' wages are calculated entirely on a monthly basis, while the remainder are based on various types of piecework systems. The survey data also show that although the majority of respondents (65.4%) receive overtime pay, a quarter (25.7%) clearly stated they did not receive any; almost 40% (37.8%) do not have wage slips; over half of respondents (52.4%) do not receive their wages the month they are due, and have arrears of wages. These data show that the degree of formalization of migrant workers' wages is not high.

We are more concerned with wage levels, which the survey measured using multiple indicators. For results, refer to Table 4.

Table 4 Multiple indicators of migrant workers' wage levels (yuan)

Option	N	Mean	Standard deviation	Mode
Monthly wage	3,006	1,092.80	561.876	1,000
Highest monthly wage	2,951	1,320.03	766.764	1,200
Lowest monthly wage	2,953	918.82	538.643	800
Previous month's wage	2,925	1,092.32	645.855	800
Average	2,815	1,107.80	473.567	975

In Table 4, "monthly wage" refers to the monthly wage received at present, highest and lowest monthly wage refers to the highest and lowest monthly wage received in 2006, and the previous

month's wage refers to wages received in June or July of 2006. According to the most reliable average value derived from multiple measures, the average monthly wage of migrant workers in the Pearl River Delta is 1,100 yuan.

III. Variables, models, and results

On the basis of the basic hypotheses of this paper, we have constructed an enterprise system model, a social environment model and an integrated model of migrant workers' wages.

Within the enterprise system model, we have chosen the logarithm of migrant workers' average monthly wages as dependent variables of the model; nine human capital variables (sex, age, educational level, total length of employment, length of employment in present enterprise, certification, training received, number of turnovers (job changes), and degree of understanding of labor law[17]) and three social capital variables (monthly hospitality and gift expenditure, use of networks to increase wages, and union membership[18]) as control variables. In addition, the variables of firm ownership type[19], size[20], industry, work type, whether labor contract signed, and firm shortage of labor were chosen as the enterprise system independent variables.

Within the social environment model, using the original dependent variables and controlling for all human capital and social capital variables, we selected the following social environment indicators as independent variables for insertion into the model: place of origin of migrant workers, firm location, personal living expenses, and the ratio of wage to agricultural income.

Using these two models as well as the integrated model, we carried out regression analysis to obtain the results in Table 5.

As shown in Table 5, in the enterprise system model, controlling for human capital and social

17 Within the questionnaire we separated levels of education into five categories: elementary school or below, junior high school, senior high school, secondary vocational and technical school, tertiary vocational school; in terms of years of study, these are classified as follows: six years, nine years, twelve years, thirteen years and fifteen years. The question relating to "Certification status" was: "Have you earned a nationally recognized occupational qualification or technical level certificate?" and answers were: 1. No (assigned to 0); 2. Yes; how many (assigned to whole number n, n ≥ 1). "Training received" asks about the number of times training was received at the workplace since 2005, with none assigned a value of 0. "Number of turnovers" refers to the number of job changes, with no changes assigned a value of 0. Responses to "knowledge of labor law" are classified into five grades: very good knowledge, good knowledge, basic knowledge, a little knowledge, and no knowledge. In our model, we have entered "level of knowledge of labor law" into the model with "not familiar with the labor law" as the dummy variable, and "familiarity with the labor law" as the reference category.

18 Within the questionnaire, the question asked to measure union membership was: "Is there a union organization in the firm where you work?" Responses are classified as follows: 1. Yes, I am the organizer. 2. Yes, I have joined. 3. Yes, but I have not joined. 4. No. and 5. Not sure. We have combined the first two responses into union membership (= 1), and the last three responses into no union membership (= 0).

19 Within the questionnaire, ownership type is classified into state-owned, urban and rural collective, private, and foreign-invested (European/American, Japanese/Korean, HK/Macau/Taiwan, other). In the enterprise system model, we made ownership the dummy variable with three dichotomous variables, classified as "collective enterprise," "private enterprise" and "foreign-invested enterprise," with "state-owned enterprise" as the reference category.

20 In the model, the firm scale is classified as "below 100 persons," "100-999 persons," "1,000-3,000 persons" and "above 3,000 persons." Among these, "below 100 persons" was set as a reference category, and the other three as dummy variables.

capital factors, the variables of firm ownership, firm scale, industry, whether labor contracts were signed, firm labor shortage situation did not show a significant effect upon wages. Among work categories, clerical and "other" work did not show a significant effect upon wages, unlike managerial and skilled work.

Table 5 Results of wage model regressions

Independent variables		Enterprise system model		Social environment model		Integrated model	
		Regression coefficient	Standard deviation	Regression coefficient	Standard deviation	Regression coefficients	Standard deviation
Individual char-acteristics	Sex	.105**	.033	.069	.037	.125**	.027
	Age	-.022*	.011	-.034**	.012	-.028**	.009
	Age squared	.000	.000	.001**	.000	.000**	.000
Education and training	Education level	.081**	.017	.089**	.020	.062**	.014
	Certification	.033	.020	.026	.025	.036*	.017
	Training	.001	.002	.000	.003	-.001	.002
Length of employment							
Total length of employment		021	.011	.018	.015		
Squared total length of employment		.000	.001	-.001	.001		
Length of employment in present firm		.062**	.016	.107**	.024	.062**	.012
Squared length of employment in present firm		-.004**	.001	-.008**	.003	-.003**	.001
Not familiar with labor law		-.073*	.031	-.091*	.037	-.059*	.026
Number of job changes		.009	.006	-.002	.007	.011*	.004
Social capital							
Use of networks to raise income		-.035	.031	.046	.038	—	—
Monthly hospitality and gift expenses		.001**	.000	.001**	.000	.000**	.000
Non-union participation		-.026	.050	-.032	.065	—	—
Firm type							
Collective		.032	.138	—	—	—	—
Private		.067	.044	—	—	—	—
Foreign-invested		.025	.047	—	—	—	—
Firm scale							
100-999 persons		.023	.039	—	—	—	—
1,000-3,000 persons		.092	.054	—	—	—	—
> 3,000 persons		.093	.054	—	—	—	—

Industry	Secondary industry	.208	.176	—	—	—	—
	Tertiary industry	.225	.176	—	—	—	—
Work category	Management personnel	.285**	.054	—	—	.250**	.047
	Technical	.179**	.039	—	—	.152**	.032
	Clerical	.052	.069	—	—	.095	.058
	Other	.187	.136	—	—	.400**	.106
Other relevant enterprise systems							
Labor contract signed		.054	.033	—	—	—	—
Firm short of labor		-.016	.033	—	—	—	—
Wage income to agricultural income ratio		—	—	.002	.002	—	—
Personal living expenses		—	—	.000**	.000	.000**	.000
Firm location	Shenzhen	—	-.087	.058	—	—	—
	Dongguan	—	-.034	.056	—	—	—
	Foshan	—	.120	.075	—	—	—
	Other	—	-.065	.057	—	—	—
Geographical origin of peasant-workers	Sichuan and Chongqing	—	.010	.058	—	—	—
	Guangxi	—	-.020	.062	—	—	—
	Hubei	—	.008	.067	—	—	—
	Henan	—	-.006	.071	—	—	—
	Hunan	—	-.007	.059	—	—	—
	Jiangxi	—	.061	.095	—	—	—
	Guizhou	—	.220*	.102	—	—	—
	Other southern provinces	—	.116	.120	—	—	—
	Other northern provinces	—	.005	.077	—	—	—
(Constant)		6.535[8]**	.251	6.800**	.221	6.728**	.147
R^2		.392(adjusted R^2 = .359)		.482(adjusted R^2 = .424)		.520(adjusted R^2 = .506)	

Notes: 1. Dependent variables: natural logarithm of monthly average wage

2. ** signifies $p < 0.01$ (two-tailed test), * signifies $p < 0.05$

In the social environment model, controlling for human capital and social capital factors, the ratio of migrant workers' wages to agricultural income and personal living expenses did not influence wages; there were no significant differences in wages among the various cities in the Pearl River Delta region where the firms were located; and there were also no significant differences in the wages of migrant workers who came from different provinces.

Finally, through screening the variables,[21] we arrived at an integrated model of migrant workers' wages. Among human capital variables, sex, years of study, certification status, length of employment in current firm, degree of knowledge (lack of knowledge) of labor law and number of job changes had a significant effect in the model. Among enterprise system variables, work category (managerial staff, other, technical) were significant.

From the results of the integrated model it is clear that most of the variables determining migrant workers' wages originate from human capital, with only a part coming from enterprise system. Controlling for other variables, male migrant workers with more years of schooling, who had a certificate, had been employed for longer in their present firm or changed jobs more frequently received higher wages; lack of knowledge of labor law had a negative effect on wages. In terms of the enterprise system variables in the integrated model, work type was a significant factor affecting migrant workers' wages. With other variables controlled, and apart from clerical work, higher wages were received by managerial staff, skilled workers and migrant workers engaged in "other" types of work in comparison with the wages of unskilled workers. Though personal living expenses was selected from the social environment model for insertion into the integrated model, the regression coefficient was 0, indicating that social environment has no significant effect on migrant workers' wages. None of the social capital variables played a role in the integrated model, but this does not imply that social capital has no influence on migrant workers' wages. More detailed measurements and deeper study of social capital may be required.

IV. Conclusions and discussion

On the basis of the results of the regression analysis of migrant workers' wages, we may arrive at the following basic conclusions:

1. Among enterprise systems, work category is among the basic variables determining migrant workers' wages. In the integrated model, work category (apart from clerical work) is an enterprise system variable with a significant effect upon migrant workers' wages, while the effect of all other variables is not significant. The effect of work category on migrant workers' wages shows clear hierarchy ranked in ascending order of unskilled work, skilled work, managerial and other work categories. Work category is a classification mechanism whereby educational level is expressed as differences in human capital via employment in different work categories. Enterprise ownership form, size and industry do not have a significant effect upon wages, nor does the signing of a labor contract. Unexpectedly, a firm's shortage of labor also does not have a significant effect on migrant workers' wages. These results verify Hypothesis 1d and contradict Hypotheses 1a, 1b, 1c, 1e and 1f.

---

21   First, all the previous human capital, social capital, enterprise system and social environment variables were introduced into the integrated model. Next, variables not passing significance testing were discarded, and finally, regression was carried out using the remaining variables to arrive at the final integrated model.

2. Social environment variables have a negligible effect upon migrant workers' wages. Regardless of where migrant workers come from, the level of their families' agricultural income, the amount of their personal living expenses, or the cities where they work, their wages do not vary significantly. This contradicts Hypothesis 2.

3. Human capital is a basic variable determining migrant workers' wages. Within the integrated model, the human capital variables of sex, age, educational level, knowledge of the labor law, length of employment in present firm, occupational certification and number of job changes have a significant effect upon wages. However, training does not have a significant effect. Apart from age, all variables that are significant have a positive effect.

Therefore, we arrive at the following basic conclusion: human capital and enterprise system (work category) are the basic factors determining the wage level of migrant workers. Social capital variables and social environment variables do not have a significant effect on wage levels. The following aspect of our conclusion is unexpected and merits further discussion: why do the wages of migrant workers show no differentiation among firms of varying ownership forms and in various locations?

In general, firms of different types may possess differing histories and cultural traditions. In researching the history of labor-capital relations, we are accustomed to think that Chinese state-owned firms have socialist traditions of handling labor-capital relations. We believe that urban and rural collective enterprises (including rural township enterprises and urban collective enterprises) are community-type firms, where labor-capital relations are deeply embedded in interpersonal relationship networks and softened by personal relationships. Private firms usually develop from the individual economy. As a result of their property rights characteristics and small scale, they are at an early stage of development and their handling of labor-capital relations is thus considered relatively simple and crude. If we consider only foreign-invested firms, European and American firms have a comparatively deeper legal tradition and may have a model adhering more to the "rule of law" for handling labor-capital relations; Korean and Japanese firms come next, followed even further behind by Hong Kong and Taiwan firms. Our hypotheses regarding influences on wage level stratification were formulated on the basis of this understanding.

However, in contrast to the difference hypothesis, there is also a non-difference hypothesis. This hypothesis is based on the following: (1) Though there exists in state-owned firms a socialist tradition of dealing with labor-capital relations, as a result of a series of market-oriented management reforms (e.g. downsizing for greater efficiency, doing away with employment security, layoffs, and performance-based wages) this tradition has disappeared. The use of peasant labor by state-owned firms has always been viewed in a special light; before reform and opening up, state-owned firms also hired a small number of farmers, but their wages and benefits were clearly below those of formal workers.[22] (2) Foreign-invested firms, regardless of their

---

22   Martin King Whyte, "The changing role of workers."

type, all enter China in search of cheap labor, and this is especially so with regard to migrant workers at the lowest end of the labor market. (3) Following the development of rural township enterprises, there was large-scale employment of migrant workers, putting an end to the use of human relationship networks. (4) As a result of the household registration system's regional divisions and the implementation of local protectionist policies, compensation for migrant rural workers is generally lower than for local workers.

The results of the regression analysis tell us that firm ownership does not have a significant effect on migrant workers' wages. This strongly supports the "no difference" hypothesis, and contradicts the difference hypothesis. Peng Yusheng classified and compared urban and rural mechanisms for determining wages, and those among firms of varying ownership types in the countryside. He found that there were no differences in wage-determining mechanisms among public, semi-private and private firms, but there were differences between urban state-owned firms and rural firms.[23] This demonstrates that the wage-determining mechanisms for formal workers in state-owned firms are distinct from those in the market system, but these mechanisms do not apply to migrant worker labor.

The non-difference hypothesis has been verified, and tells us that worker-peasant labor remains worker-peasant labor regardless of firm type. Any differences may reside in the dual structure of the labor utilization system and at the high, not the low, end of the labor market.

Now let us look at the regional issue.

As a variable, geographic region is extremely high significant, as it reflects government policy (among which the minimum wage has the greatest effect on migrant workers' wages), levels of social and economic development, living standards, customs and traditions, etc.

We formulated the following two hypotheses regarding the influence of place of origin on migrant workers' wages: firstly, the difference hypothesis presumes that traditions and levels of socio-economic development that vary across regions influence the degree to which wage levels are accepted by migrant workers, thereby influencing their wage levels. This has been included in hypothesis 2a. Secondly, the no difference hypothesis asserts that wage levels in the Pearl River Delta region are all higher than the acceptable level for migrant workers.

From the standpoint of the origins of migrant workers, our investigation includes samples from every province (municipality, autonomous region) except Tianjin, Xinjiang and Tibet. Despite their different places of origin and the disparities in regional socio-economic development and traditions and customs, these differences are unable to influence migrant workers' wage levels. This contradicts hypothesis 2a.

Therefore, the "no difference" hypothesis of wage levels across migrant workers' place of origin is established.

Similarly, we formulated the following two hypotheses regarding the influence of firm location

---

23   Peng Yusheng, "Wage determination in rural and urban China: comparison of public and private industrial sectors."

on migrant workers' wages. Firstly, the difference hypothesis. If we assume that minimum wage standards vary across regions and there are differences in level of socio-economic development, this will influence wage levels. Secondly, the no difference hypothesis. If we assume that the lowest minimum wage standard is very low or has not been rigorously enforced, it will have no effect on wage levels. Moreover, socio-economic development in Pearl River Delta cities is already integrated, and differences in wage levels among them are not great.

In our research, there are differences in the minimum wage in the nine Pearl River Delta cities where firms are located, and levels of socio-economic development also vary. However, these differences do not significantly influence migrant workers' wages.[24] This demonstrates that in the Pearl River Delta, a unified low-wage low-end labor market has already been established. This market may differ from the Yangtze Delta and other regions, but within this market, a price pact has apparently been formed among firms employing low-cost peasant labor.

The wages of migrant workers are situated at one end of a segmented dual labor market, and represent low wages of maximum rigidity that are highly marketized and lack intra-firm labor markets or promotion mechanisms. They are little influenced by changes in labor market conditions or regional differences. The low wages of migrant workers have become standard business practice and broadly accepted in the society as a whole.

"Payment is an institutional tool as well."[25] We have stated that the social environment does not influence migrant workers' wages, but this does not mean that it does not influence the migrant workers' wage system. Institutional arrangements for the low wages of migrant workers are on the surface realized through human capital, with work category being viewed as a classification mechanism for human capital; in reality, they are a common agreement among various firms, the market and society. In firms of various ownership types, industries and regions, and regardless of origin or family economic situation, migrant workers in the Pearl River Delta all have a "legitimized" low-wage institutional arrangement. This lack of differentiation calls into question existing market and capital institutions, and the legitimacy of social stratification mechanisms and the dual structure. If we are to reform these institutional arrangements, our first task may be to carry out a thorough study of this system and then inform the public of what we have learned.

Notes on contributors

Liu Linping, Master of Laws; Professor of Sociology and Social Work at Sun Yat-sen University. Primary research fields: organizational sociology and labor issues. Recent publications: Guanxi*, Social Capital and Social Change – A Study of Shenzhen's "Pingjiang Village"* (关系、社会资本和社会转型——深圳"平江村"研究, Beijing: China Social Sciences Press, 2002), "Utilization of *Guanxi* (ties) in Immigrant Groups – A Case Study of Pingjiang Village in Shenzhen"(外来人群体中的关系运用——以深圳"平江村"为个案, *Zhongguo*

---

24 Our statement that the minimum wage standard plays no role is based on regional differences. It may play a role when time varies.

25 Arthur L. Stinchcombe, "On the virtues of old institutionalism," p. 17.

shehui kexue [中国社会科学], 2001, no. 5), "Firm Type, Government Vacancies, Collective Bargaining and Guaranteeing the Rights of Women Migrant Workers"(企业性质、政府缺位、集体协商和外来女工的权益保障, *Sociological Studies* [社会学研究], 2004, no. 6), "The Social Capital of the Firm: Review of Concepts and Measurement Methods" (企业的社会资本：概念反思和测量途径, *Sociological Studies*, 2006, no. 2). E-mail: E-mail:lpsllp@mail.sysu.edu.cn.

Zhang Chunni, graduate student of 2007 class of Department of Sociology, Peking University; cooperated with Liu Linping in publication of "Migrant workers' wages: human capital, social capital, enterprise systems or social environment- determining models for Pearl River Delta migrant workers' wages" (农民工工资：人力资本、社会资本、企业制度还是社会环境——珠江三角洲农民工工资的决定模型, *Sociological Studies*, 2007, no. 6). E-mail: spring-muddy@163.com.

References

Blau, Francine D., and Lawrence M. Kahn. "Gender differences in pay." *The Journal of Economic Perspectives*, 2000, vol. 14.

Gerber, Theodore P. "Getting paid: sage arrears and stratification in Russia." *American Journal of Sociology*, vol. 111, 2006, no. 6.

Harrison, Bennett, and Barry Bluestone. *The great U-turn: corporate restructuring and the polarizing of America*. New York: Basic Books, 1988.

Huang, Philip. "Institutionalized 'semi-industrial, semi-rural' agricultural involution" (Part I.) (制度化了的"半工半耕"过密型农业 [上]). *Dushu* (读书), 2006, no. 2.

Korenman, Sanders and Susan C. Turner. "Employment contacts and minority-white wage differences." *Industrial Relations*, 1996, vol. 35.

Lewis, W. Arthur. *Theory of the dual economy*. Trans. Shi Wei, Xie Bing and Su Yuhong. Beijing: Beijing College of Economics Press, 1983/1989.

Li, Chunling. "The non-institutional path taken by migrant workers – a comparison between migrant labor and non-migrant labor" (流动人口地位获得的非制度途径——流动劳动力与非流动劳动力之比较). *Sociological Studies* (社会学研究), 2006, no. 5.

Lillard, L. & Tan, H. "Private sector training" (Report No. 3331-DOL). Santa Monica, CA: Rand Corporation, 1986.

Lin, Nan. *Social capital: a theory of social structure and action*. Trans. Zhang Lei. Shanghai: Shanghai People's Publishing House, 2004.

Liu, Linping, Wan Xiangdong and Zhang Yonghong. "Institutional and labor shortages – researching the 'migrant worker shortage' issue" (制度短缺与劳工短缺——"民工荒"问题研究). *China's Industrial Economy* (中国工业经济), 2006, no. 8.

Marx, Karl. "Wages, prices and profit." In *Selected works of Marx and Engels* (Volume II). Beijing: People's Press, 1972.

Mincer, J. "Human capital and the labor market: a review of current research." *Educational Researcher*, vol. 18, no. 5, 1989.

Mouw, Ted. "Social capital and finding a job: do contacts matter?" *American Sociological Review*, 2003, vol. 68.

Peng, Yusheng. "Wage determination in rural and urban China: comparison of public and private industrial sectors." *American Sociological Review*, 1992, vol. 57.

Scott, W. Richard. *Organizations: rational, natural, and open systems*. Trans. Huang Yang, *et al.* Beijing: Huaxia Press, 1998/2002.

Staiger, Doug. *The effect of connections on the wages and mobility of young workers*. Cambridge, MA: The MIT Press. 1990.

Stinchcombe, Arthur L. "On the virtues of old institutionalism." *Annual Review of Sociology*, 1997, vol. 23.

Whyte, Martin King. "The changing role of workers." Trans. Yang Haihong. In *China's second revolution – China in the view of Western scholars*, ed. Zhang Minjie. Beijing: The Commercial Press, 2001.

Williamson, Oliver, Michael Wachter, and Jeffrey Harris. "Understanding the employment relation: the analysis of idiosyncratic exchange." In *The economic nature of the firm*, eds. Louis Putterman and Randall S. Kroszner, trans. Sun Yingwei, 1975/2000.

Xie, Yu. "Regional differences in income inequality of urban residents in China in the reform period" (改革时期中国城市居民收入不平等的地区差异). In *Social science methods and quantitative research* (社会学方法与定量研究). Beijing: Social Science Academic Press, 2006.

—*Translated by* Dong Qin
Revised by Sally Borthwick