

Peasant Workers Gender Income Gap in China

Yi-Xin DONG^{1,a}, Sheng-Ji LI^{2,b,*}

^{1,2}School of Business, Northeast Normal University, Changchun, China

^adongyx652@nenu.edu.cn, ^blishengji1986@sina.com

*Corresponding author

Keywords: Peasant workers, Male and female, Income gap, Income equity.

Abstract. This paper takes the city of the Pearl River Delta region of peasant workers as the research object, using quantile regression method to analyze the influence of gender on peasant workers income gap and through the Oaxaca-Blinder decomposition method to evaluate the degree of inequality income in discrimination of peasant workers in the Pearl River Delta. According to the research, finding that the peasant workers income gap is more causing by the personal characteristics in the Pearl River Delta.

Introduction

In the Pearl River Delta region, peasant workers has become an important part of the urban labor market, the economic development of the Pearl River Delta region has made tremendous contributions. However, the farmers work for vulnerable groups in the labor market, their income level, the level of social security, children's education and household problems are quite different between urban workers. In recent years, these external differences between urban workers and peasant workers have been among the local government and academia widespread attention, while the performance of the internal differences in the populations of peasant workers peasant workers more prominent gender pay gap.

This gender income gap has caused the emergence of a number of factors .First, compared with men, women peasant workers in the initial selection will be constrained when the objective conditions of peasant workers , such as family factors , social attitudes and career difficulties and other factors, these factors will inevitably lead to the number of female peasant workers than men .Secondly, from the employment environment , due to the persistence of gender discrimination within the industry , men and women peasant workers have a large gap in wages and career choices.

Significance of this study is based on survey data related to this particular region has a population of more peasant workers in the Pearl River Delta analysis. So the conclusions of this study are highly representative.

Literature review

In recent research on the income gap of peasant workers, it's not common to analysis from the perspective on gender difference. Tian Feng, the CASS Institute of Sociology, decomposition method by Brown in 2008 income of urban workers and peasant workers decomposed sample data, found ownership units are mainly peasant workers reasons of the income gap .Li Shi, Yang Xiuna also used the 2008 survey data, data source is the "study of Chinese peasant workers" Task Force of Beijing Normal University , the study of 15 cities for peasant workers to investigate, concluded that men and women peasant workers have different income mainly affected by gender discrimination and some unpredictable factors, especially for younger and no working experience generation of peasant workers, the impact of gender discrimination generated more pronounced. Wang Fang, Zhou Xing quantile regression with non-conditional gender wage gap in 2011 peasant workers analyzed, studied have shown that the main cause of peasant workers gender pay gap is gender discrimination, in addition , the impact of work experience outstanding impact than education.

Wang Zhen also studied the gender income gap between peasant workers with quantile regression methods, studies show that in the high-end of the wage distribution, female peasant workers to obtain a certain level of social protection, the market started to break binary segmentation system. Zhang Qiong use Oaxaca-Blinder decomposition method, found gender income gap influenced by age, education level, different industry and marriage obviously, in the research, unexplained part accounts for about 75%, so that the income gap between peasant workers may exist significant gender discrimination.

Empirical Analysis

Data sources

Data source of this article is the Social Science Research Center of Zhongshan University launched “the Survey of peasant workers in the Pearl River Delta cities in 2006” in July, 2006. The survey defined object is “rural census holders of a college degree and the following counties (districts) region migrate to urban workers”. For peasant workers in formal employment questionnaire survey should include: A. Basic personal circumstances, B. Go through, C. Current work situation, D. Current living conditions, E. Enterprises (units) Management and Welfare System, F. Relationships, feelings and social participation, G. Future plans as well as other; Peasant workers in informal employment questionnaire survey mainly are: A. Basic personal circumstances, B. Go through, C. Current living conditions, D. Relationships, feelings and social participation, E. Future plans as well as other, F. Informal employment section. The final number of survey questionnaires to obtain formal employment of peasant workers for 3086, the effective number of informal employment questionnaires to 888 parts by peasant workers. The overall sample size was 1181 male peasant workers, the sample size was 1676 women peasant workers. Table 1 shows the sample characteristic men and female peasant workers in the Pearl River Delta, among them, the level of education and business ownership after averaging sample number.

Table 1 Sample Characteristics of male and female peasant workers in 2006

	Sample size	The average income	The standard deviation	Age	Exp	Edu	Own
M	1181	4771.62	4076.32	28.9	19.71	2.12	5.27
F	1676	4737.24	3977.45	32.2	22.67	2.22	5.27

Note: According to the authors calculated to obtain.

From Table 1, it can be concluded the average age of male peasant workers is less than women; education is also lower than female peasant workers, which shows mostly male peasant workers only need to pay a professional manual, need to learn more knowledge. Therefore, the majority of peasant workers are younger when they choose the migrant, while not choose to accept more education This will inevitably lead to lower average by level of education, but also we can see the average income for men than female, which may be due to personal characteristics of men than of female peasant workers, it may be sex discrimination led to a certain extent the income gap.

Measurement methods

Factors used herein Oaxaca-Blinder decomposition method quantile regression to examine the gender income gap peasant workers; this approach can explain their personal characteristics and the degree of influence of gender discrimination. According to Mincer wage equation may be a function of male and female wages of peasant workers is expressed as:

$$\ln W_i = \beta_i x_i + \mu_i \quad i = m, f \quad (1)$$

$\ln W_i$ represents the logarithm of wages, m represents the male; f denotes females, β_i for the estimated coefficient, x_i is the independent variable.

Firpo et.al (2009) study "reset center influence function" is not linear, therefore, RIF-OLS estimates are not consistent, so we provided a nonparametric estimation method. Based on the age, level of education, work experience and enterprise ownership as the independent variable, regression equation is represented as:

$$Q_{\tau}(\ln W_i) = \alpha_{\tau} + \beta_{1\tau} \text{age} + \beta_{2\tau} \text{edu} + \beta_{3\tau} \text{exp} + \beta_{4\tau} \text{ownership} + e_{i\tau} \quad i = m, f \quad (2)$$

Based on quantile regression, through Oaxaca-Blinder decomposition method, the decomposition of each site from gender gap can be explained and an explanation of two parts, with the equation is expressed as:

$$\ln W_{\tau}^m - \ln W_{\tau}^f = [(x_{\tau}^m - x_{\tau}^f)\beta_{\tau}^f + R_{\tau}^*] + x_{\tau}^m(\beta_{\tau}^m - \beta_{\tau}^f) \quad (3)$$

β_{τ}^f showing the structure of counterfactual distribution, R_{τ}^* represents the approximate error term. The first term represents the difference in income could explain part of the equation to the right, that men and women peasant workers by personal characteristics caused by the income gap; the second term represents the unexplained part, that sex discrimination brought by the wage gap.

According to the statistical results of the survey data, first carries on the regression analysis using the OLS method to overall samples, the regression results are shown in table 2.

Table2 Peasant workers Income Sample Regression Analysis Results

	Total		M		F	
	coef	T statistic	coef	T statistic	coef	T statistic
Age	1.750	4.05	0.877	1.38	2.484	4.03
Edu	0.027*	0.29	-0.260*	1.7	-0.136*	-1.07
Exp	1.157	4.32	1.454	3.84	0.698	1.7
Exp ²	-0.404	-4.72	-0.358***	-2.8	-0.406***	-3.25
Own	-0.057**	-2.37	-0.044	-1.11	-0.061**	-2.03

Note: ***, **, *in 0.01, 0.05, 0.10 respectively under the significance level of significant.

Table 3 Male and Female peasant workers income quantile regression results

	Quantile							
	0.2		0.4		0.6		0.8	
	M	F	M	F	M	F	M	F
Age	0.340** (0.167)	-0.171 (0.112)	0.093 (0.148)	-0.069 (0.081)	0.135 (0.106)	-0.067 (0.074)	0.167* (0.086)	-0.045 (0.098)
Exp	-0.340** (0.167)	0.171 (0.112)	-0.094 (0.147)	0.066 (0.080)	-0.135 (0.105)	0.064 (0.073)	-0.173** (0.085)	0.042 (0.097)
Edu	-0.730 (0.459)	0.670** (0.309)	-0.059 (0.383)	0.356* (0.211)	-0.170 (0.279)	0.351* (0.194)	-0.273 (0.218)	0.314 (0.260)
Ow n	0.0008 (0.132)	-0.017* (0.009)	-0.020 (0.125)	-0.026*** (0.009)	-0.031** (0.010)	-0.020** (0.009)	-0.006 (0.008)	-0.009 (0.011)

Note: Standard errors in parentheses; ***, **, * represent the 1%, 5% and 10% were significantly.

From the overall regression results found that the age of the overall sample regression coefficients according to the positive, and the t value is bigger, that illustrate the impact of age on the income gap is positive and great influence. Men and female be education degree of regression

coefficients were negative, explain the relationship between the level of education and income gap is negative correlation; Experience square regression coefficients are negative, and a larger t value, the work experience in peasant workers has much effect on the income gap. Enterprise ownership of regression coefficient is negative, t value is bigger, shows that the income gap in different economic nature exist certain differences.

And choose 20% , 40%, 60% , 80% quantile of four , four quantile estimate parameters derived quantile income men and women peasant workers return results .Table 3 for the quantile regression results.

Returns from the point of age, female peasant workers age are not significant in each quantile, age of return is less than the male peasant workers, suggesting that women peasant workers income is less affected by age factors. Male peasant workers in 0.2 loci and 0.8 loci show a significant effect on income, low site of male peasant workers age on income effect is more obvious than the effect of high site, therefore, the male peasant workers is strongly influenced by age, especially in the income levels at the ends of the performance is more obvious.

Working experience for peasant workers the influence of the gender pay gap has significant differences. Male peasant workers low site and site experience has significant negative effects on men’s income, it shows that low site male peasant workers is mainly engaged in manual labor, the length of the work experience is not the main reason to improve their income.

At the same time, due to the physical work in the simple and causes of job burnout, and the high score site male peasant workers and not through long-term working experience to improve their income, higher income, but the way through it, therefore, low site and site of male peasant workers work experience has a negative influence on income.

On each income quantile, influenced by the education level of male peasant workers income is not significant, on the contrary, for female peasant workers, level of education in three has had a significant positive influence on the quantile. This shows that male peasant workers engaged in physical labor, more return on education is not high, At various points on, migrant female workers return on education of peasant workers were higher than men, migrant female workers is mainly engaged in the tertiary industry and education to enhance the role of migrant female workers in greater income.

Enterprise ownership has a significant negative influence on female peasant workers income, high locus on female enterprise ownership has been the biggest influence on rural peasant workers, and low site migrant female workers affected by the nature of the corporate ownership is smaller, That female peasant workers into the nature of the non-state-owned enterprises improve income will be higher.0.6 loci of enterprise ownership has significant negative effects on male peasant workers income, notes equal loci male peasant workers mainly engaged in the non-state-owned nature of the enterprise.

Table 4 Male and Female peasant workers income inequality decomposition results

Quantile	Explained part	Unexplained part
Age	-1.696	-2.167
Exp	-0.348	0.703
Exp ²	2.869	1.583
Edu	0.004	0.043
Own	0.005	0.004
Totoal	0.833	0.167

Finally, the income differences decomposition analysis, decomposition results in Table 4. Table 4 Male and Female peasant workers income inequality decomposition, the explained part between the income of peasant workers is much higher than the unexplained part, leading to personal characteristics affect the impact of the income, we should strengthen the emphasis on their quality education of peasant workers, vocational training gap is greater than the result of gender

discrimination results. The explained part of the difference in the comprehensive analysis of the income gap, we can find the age and work experience are the main factors causing the income gap between peasant workers in terms of the Pearl River Delta region, and is a negative influence. Among them, the role of work experience maximum effect, indicating a certain extent, more peasant workers engaged in labor-intensive industries requiring manual labor.

Conclusion

This paper based on the city of peasant workers survey data in the Pearl River Delta of 2006, using quantile regression model to analysis the income between men and women migrant. The research shows that the main cause of peasant workers on the gender pay gap is the difference between personal characteristics of peasant workers. The personal effects of the more prominent features are the age and work experiences. Therefore, we should take active measures to improve the overall professional level and the overall quality of female peasant workers and pay more attention to the younger generation of peasant workers in the cultural and educational. In addition, governments and businesses should give more support on vocational skills training for female peasant workers and pay much attention on improving the female peasant workers overall income levels in order to narrow the income gap between men and female, avoiding discrimination against female peasant workers in the working proceeding.

Acknowledgement

This research was financially supported by the national philosophy and Social Science Fund of China (14BJL040) and the Fundamental Research Funds for the Central Universities (14ZZ1203).

References

- [1] Chen Zhenzhen, You Jiaying, *Factor Analysis on the Income Level of Off-Farm Workers-Based on Quantile Regression*, Statistical Research. 6(2009)79-84.
- [2] Yuanyuan Chen, *The effect of Job Transfers on Income of Peasant workers: the Comparison of Two Generations of Peasant workers in Pearl River Delta*, South China Journal of Economics. 3(2013)1-12.
- [3] Chen Jie, Jin Minzhou, *The Income Elasticity of Housing Demand in Shanghai: Micro-data evidence based on household survey*, Shanghai Economic Research Journal. 3(2012)15-24.
- [4] Wen Longqian, Liqing Jiang, *Quantile Regression Analysis of Gender Wage Gap in Peasant workers Evidence from Zhejiang*, Collected Essays on Finance and Economics. 5(2011)15-24.
- [5] Liang Han, Xin Yuan, *The Characteristics of Income Increase of Rural Peasant workers and its Reasons*. Future and Development 9(2008)74-77.