

## Analysis on Sources of Labor Wage Gap in China

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Supported by National Social Science Foundation (12CJL003).

Received 16 January 2016; accepted 16 March 2016 Published online 30 April 2016

### Abstract

With the Chinese social and economic development, there has been a wider wage gap among residents gradually in the process of economic transition, which has aroused great interest in the society. The paper reviews the wage gap theory systematically at first, and analyzes the sources for wage gap from different perspectives. Furthermore, this paper analyzes the reasons for wage gap among Chinese residents in urbanization and the relevant theoretical evidence by combining with the current situation of Chinese wage gap and, offers some countermeasures at the same time.

**Key words:** Wage gap; Human capital; Sources; Labor flow

Tao, M. Y., & Xu, B. (2016). Analysis on Sources of Labor Wage Gap in China. *International Business and Management, 12*(2), 5-9. Available from: http://www.cscanada.net/index.php/ibm/article/view/8250 DOI: http://dx.doi.org/10.3968/8250

#### INTRODUCTION

#### **Theoretical Review of Wage Differential**

The discrimination theory emphasizes the influences of institutions and social factors on labor payment. Western economics argues that discrimination happens when the labors with the same average capacity get different average wages. Modern labor economics maintains that discrimination will exist in the labor market when the wage that employers pay for the fixed productivity is different according to the different performances of labors. Occupational choice will be restricted directly or human capital will be lower at the moment. The discrimination theory focuses on the "institutional discrimination" (Guo, 1994; Zhou, 1994; Lu, 1998; Cai, 1998). Apart from the influence of official institutions, unofficial institutions such as ideology and public opinion also discriminate migrant workers. From the perspective of employers, the employers with the decision right in the non-clearing labor market are in smaller numbers and they have employment right. They discriminate migrant workers through wage gap, which is the adaptive behavior that maximizes profits (Zhao & Liu, 2006).

The LMS theory (labor market segmentation) emphasizes the influence of product market on labor payment. The theory holds that the product market rather than the labor market decides wage, and the labor market belongs to the product market. The theory explains the influence of occupational features on wage. The prime market is featured of high salary, favorable working conditions, stable employment, safety, normal management, and more promotion opportunities; the secondary market is featured of low salary, unfavorable working conditions, unstable employment, rough management, and fewer promotion opportunities. Internal labor market constitutes the prime market. The management institutions control wage and labor distribution; market has no influence here; the balance measures between demand and supply of the internal labor market mainly include recruitment, training, redesign, subcontracting, and output adjustment. Most of employees in the secondary market are poor people.

Another explanation about wage gap takes the professional skills via training into consideration. The employees who have received the professional training are valuable sources of enterprises, and their flow will bring high cost. Therefore, in order to retain these employees, enterprises should pay them more wages (Williamson, 1975). This opinion ignores the non-flow of human capital due to the professional asset. If these employees resign, the professional training that they have received will be useless and the labor productivity will reduce (If the labor productivity does not reduce, their training will not be professional). According to the principle of marginal productivity pricing, the wage will be reduced and the "hitched" effect will appear. Therefore, professional human resources tend to be cautious in job transfer due to the cost, so professional training may not bring the wage increase.

The human capital theory appeared and developed since 1960s, which studies the dynamic evolution of income distribution layout from the perspective of human capital investment. For example, the theory leads in Schultz's human capital concept, which realizes the quantitative and qualitative analysis of labor quality effectively and simplifies and deepens the research and calculation method of wage gap. The theory can explain the wage gap due to the return or compensation of human capital investment. In addition, the theory scientifically explains the wage gap between manual workers and collar workers. and shows that the narrowing wage gap between them is the result that education and technical training are valued by individuals and the society and is the performance of improved technical level of labors. Besides, the theory explains employers' training behavior and the subsequent wage decision-making behavior. The paper analyzes the

sources of wage gap among labors in Chinese urbanization and offers the countermeasures based on the human capital theory and the current situation in China.

## 1. CURRENT SITUATION OF WAGE GAP IN CHINA

Chinese Gini Coefficient significantly exceeds the internationally recognized guard line. The internationally recognized Gini Coefficient is the main index that measures the wealth gap and the resident income gap of a country. The relevant organization of WTO stipulates that the income distribution will be absolutely balanced if the value of Gini Coefficient is smaller than 0.2; the income distribution will be balanced if the value is from 0.2 to 0.3: it will be reasonable if the value is from 0.3 to 0.4; the income gap will be wide if the value is from 0.4 to 0.5; the income gap will be vastly wide if the value if larger than 0.5. If the value of Gini Coefficient exceeds 0.4, the gap between the rich and the poor will be extremely wide. As shown in Figure 1, Chinese Gini Coefficient was from 0.2 to 0.3 in 1980s, which had the trend of equalitarianism. Chinese Gini Coefficient increased sharply and rapidly since 1990s, and the value reached 0.414 in 2000. The value was 0.469 in 2014. Gini Coefficient reduced for successive 6 years since 2009, but the high value should still be emphasized. The data shows that the income gap among Chinese residents is extremely wide in the short time since reform and opening up.



#### Figure 1

**Curve of Chinese Gini Coefficient** *Note*. Adapted from National Bureau of Statistics.

#### 1.1 Wage Gap between Men and Women

In general, women have more job choices since reform and opening up. 32.9% of urban employees were females in 1978; 37.6% of urban employees were females in 2008. Researches show that the wage gap between men and women is increasing gradually in the process of Chinese economic transmission. The third stage of sampling survey result made by All-China Women's Federation and National Bureau of Statistics since December 1, 2010 showed that female's wage was relatively slower, and the income gap between men and women was wide. Most of female labors from 18 to 64 years old were in the groups of low income and medium income. 59.8% of urban female labors lowincome people, being 19.6% higher than that of males. 30.9% of urban female labors were in the group of high income, being fewer than that of male labors. The data also revealed that the average annual labor income of urban females was only 67.3% that of males; the average annual labor income of urban females in Beijing, Tianjin, Shanghai, East, and Mid-west was lower than that of males.

#### 1.2 Wage Gap between Different Industries

From the perspective of subdivided industries, the average wage of the securities industry was 15.93 times that of the animal husbandry industry in 2008; the average wage of the competitive industries was low generally. From the perspective of major industries, the average wage of the financial industry was 4.7 times that of the agriculture, forestry, animal husbandry, and fishing industry in 2009. According to the data of National Bureau of Statistics, there were 7 industries in 2008 whose average wage was lower than the average national wage, including the agriculture, forestry, animal husbandry, and fishing industry (44.33%), the lodging and catering industry (66.65%), the architecture industry (73.65%), the water conservancy environment and public infrastructure management industry (75.89%), the whole sale and retail industry (87.37%), the manufacturing industry (82.27%), and the resident service and other service industries (81.43%). All of these industries were competitive industries. (from Institute for Labor and Wage Studies).

The statistic data showed that the average wage of urban labors in Chinese finance & information transmission industry, and computer service industry was 13206 yuan and 27337 yuan respectively in 2000. The average wage of urban labors in Chinese finance & information transmission industry, and computer service industry was 89743 yuan and 80510 yuan respectively in 2012, which was more than 92% and 72% of the average wage of urban labors in other industries. The average annual wage of financial industry and information service industry increased 17.3% and 9.4% respectively from 2000 to 2012, which was much faster than that of other industries in China. Different from financial industry and IT industry, the wage of labors in public service industries such as traditional manufacturing industry, environment industry, water conservancy industry, and resident service industry still increases slowly.

# 1.3 Wage Gap between Urban Areas and Rural Areas

The per capita disposable income gap between urban areas and rural areas widened from 1.8:1 in 1980s to 2.5:1 in 1990s. The gap widened to 3.33:1 in 2007. The gap narrowed since 2007, and the gap reduced to 2.75:1 in 2014. If the overestimated income in rural areas is ignored and the hidden welfare is added to the income of urban residents, the income of residents in urban areas will be about 6 times that of rural areas. The income of residents in urban areas is usually 1.7 times that of rural areas in those countries whose economic level is similar to China. According to the relevant report of World Bank, the ratio of urban-rural income in most of countries is 1.5:1, but China is one of the three countries whose ratio exceeds 2. Just as a saying goes, "Chinese cities are like Europe, but rural areas are like Africa". Urban-rural income gap contributes 30%-40% of the current income gap in China.

### 1.4 Wage Gap in Different Areas

Income gap in different areas is widening since reform and opening up. The per capita income of East was 1.16 times and 1.37 times that of Middle areas and West respectively in 1978. The per capita income of East was 1.55 times and 1.55 times that of Middle areas and West respectively in 2005. The per capita financial revenue of East was 1.42 times and 2.66 times that of Middle areas and West respectively in 1978. The per capita financial revenue of East was 2.04 times and 1.93 times that of Middle areas and West respectively in 2003. According to the estimation of relevant experts, The regional income gap contributes 18.15% of the national income gap.

## 2. ANALYSIS ON SOURCES OF WAGE GAP IN CHINA

Western wage theories explain the reasons for wage gap in China from different perspectives, but there are many reasons for this phenomenon in the process of socialism with Chinese characteristics and one theory could not explain all these reasons completely. Therefore, this paper analyzes the sources of wage gap in China as follows:

# 2.1 Labor Quality Gives Rise to the Competitive Wage Gap

Labors' human capital and capacity are different, so labor productivity is different. According to the human capital theory, under the three conditions that the opportunities are equivalent; labors accumulate abilities in school education or professional training; labor flow is abundant. Firstly, the high wage is the return and compensation to human capital investment. The higher return is always considered in human capital investment. Otherwise, nobody will be willing to invest. Secondly, the labors with higher human capital investment tend to make greater contributions. Generally speaking, the higher the human capital is, the higher the labor productivity and the marginal value will be, and the higher the wage will be. Thirdly, social and economic development needs a small number of high-quality labors in the knowledge-based economy age. The phenomenon that high-quality labors fail to meet the demand but low-quality labors exceed demand has existed in the labor market of some developed countries. According to the theory that supply and demand relationship of labor decides wage, the wage of the labors with higher human capital investment should be higher than that of the labors with lower human capital investment.

# 2.2 Different Jobs Bring the Compensatory Wage Gap

In practical economic activities, labors with the same capacity and educational background may have different wages in different jobs. Except industrial factor and regional monopoly factor, wage gap tends to be related to job nature and conditions. A series of job features such as work injury risk, work reputation, and workplace will give rise to such compensatory wage gap. For example, some jobs are relaxing, pleasant, and safe, but some jobs are boring and dangerous. Generally, those unstable, boring, and dependent jobs with unfavorable working conditions, nervous atmosphere, high risks, remote workplace, low social statues, and overtime work should provide the compensatory payment to avoid employees' bad mood.

# 2.3 Natural Factors or Non-natural Factors Cause the Monopoly Wage Gap

Three conditions in the human capital theory: opportunities are equal; abilities are accumulated in school education or professional training; labor flow is abundant are not supported in the real society. In fact, the opportunities of job hunting, job transfer, and wage increase are not equal. People's IQ and EQ values are different; people not only accumulate abilities in human capital investment; labor flow is not completely free. Legal, social and cultural factors, direct cost (the cost of hunting for a new job or moving to another city) or indirect cost (keeping the wage of the original job—the opportunity cost) restrict labor flow. From the perspective of the practice in China, the following natural and nonnatural factors lead to the monopoly wage gap.

#### 2.3.1 Natural Factors

The labors of a job are in shortage, but it is hard to acquire these labors due to their natural features or quality requirement. In other words, it is hard for the labors in other jobs or new labors to transfer to this job through the short-term learning and training, so the labors of this job such as recreation and sports stars will keep their monopoly position and get the monopoly income. These stars are selected from countless outstanding backups, and they could not be replaced. In addition, they are popular among millions of fans in China, so these stars are in urgent need sometimes. As a result, their income may be exceedingly high.

#### 2.3.2 Institution or Policy Factors

Institution and policy reasons can attribute to the incomplete market and market failure. Due to external limitations such as craft union, industrial labor union. administrative power, and even economic system, other labors fail to transfer to this job, so the labors of the job will keep their monopoly position and get the monopoly wage. In monopoly industries, labors in the state-owned departments enjoy more favorable institutional policies in wage. In competitive industries, the principle of "equal pay for equal work" has been basically realized in stateowned departments and non-state-owned departments. In monopoly industries, wage gap between stateowned departments and non-state-owned departments attributes to institutional factors that market fails to explain. Personal gift only has a slight influence on wage gap. Besides, urban-oriented policies lead to the monopoly wage gap. A great deal of evidence shows that, along with the change of political and economic conditions, pressure groups become the decisive factor of Chinese urban-oriented policies. The old institutions and policies in traditional development strategies and central plan-oriented economic system, especially the misunderstanding of labor market and capital market, fail to disappear in the current economic system completely.

# 2.3.3 Trans-regional Transfer Cost and Incomplete Information

Labor flow is the most powerful lever of weakening regional wage gap. In the following figures, Figure 2 represents the area with high wage—A; Figure 3 represents the area with low wage—B.  $W_a$  and  $W_b$  represent the initial wage of A and B;  $S_{al}$  and  $S_{bl}$  represent the initial labor supply in A and B. If the labor flow cost and the information cost is zero respectively, labors will flow from A to B. Under the influence of regional flow of labors, the labor supply of A will move from  $S_{al}$  to  $S_{a2}$ ; the labor supply of B will move from  $S_{bl}$  to  $S_{b2}$ . The maximization of personal effect is the radical driving force of such flow. As a result, regional wage will near  $w_e$ . If regional wage gap exists, such flow will not stop.

Regional flow of labors depends on the accurate occupational information. It takes time and cost to search the proper occupational information. Another bigger limitation comes from the flow cost, including the direct transfer cost and the psychological cost. The transfer cost is tangible, which could be measured accurately; the intangible psychological cost is hard to be calculated accurately. The psychological cost refers to the uncertainty because of leaving the familiar living environment and changing the original lifestyle. Regional labor flow hinders the reduction of regional wage differentials in real life. Apart from social obstruction and institutional factors, the obstructions that are directly related to labor flow include information error, information cost, and flow cost.



Figure 2 The Area With High Wage





### CONCLUSION

Wage is the important lever of adjusting labor resource allocation in market-oriented economy countries. The reasonable wage gap will promote labors to transfer from the low-productivity industries or departments to the highproductivity ones, and will encourage labors to improve their working performance, to raise the labor resource allocation efficiency. If the relatively fairness of income distribution is overemphasized, economic growth will be slow. Therefore, the key is not wage gap but whether the induction mechanism is proper, and researches on wage gap should begin from the formation mechanism. Industrial wage gap, urban-rural wage gap, and regional wage gap will be widened in the process of socialist market-oriented economy construction in China because its formation mechanism is not reasonable. Therefore,

a) Human capital investment should be increased to realize the equal national human resource investment and to implement rural-oriented policies or support urban families with lower income to narrow the income gap. The proper human capital investment policies should be made to narrow the income gap, to provide more education opportunities for those low-income families, to guarantee that all people could receive the complete compulsory education, to improve the health of those low-income families, to generalize the basic medical insurance, and to reduce illness. In addition, human capital investment such as education and medical insurance should be enhanced to provide more job opportunities for those low-income families and to narrow the income gap.

b) The complete human capital market should be built

to make the relevant profits. The reasonable competitive wage gap should be formed to play the value of human capital and experience in jobs, to make wage play the labor price lever role, and to realize the optimal labor resource distribution. The labors with human capital should be arranged to the proper jobs via the human capital market. Only in this way, can human capital be used effectively to the maximum degree and can enterprises make profits. Although human capital investment has risks, the complete human capital market can reduce the risks, which will be helpful to the fair competition, orderly flow, and optimal distribution of human capital and will maximize the return of human capital investment.

c) The labor marketization should be enhanced; the measures should be taken to remove the institutional obstructions of free labor flow; the formation mechanism of wage gap should be cultivated to reduce the monopoly wage gap. In addition, the complete labor market system should be built; the operating mechanism should be built; the external factors that hinder labor flow should be cancelled to remove the monopoly income source gradually. Besides, the monopoly income due to the discriminative policies should be removed; the regional and even the national labor markets should be opened to break the relatively isolated state among different regions, industries, and enterprises.

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