

Institutional Labour Market Segmentation in China

Shi Li, School of Economics and Management, Beijing Normal University, China

Haiyuan Wan, Research Institute of Social Development, National Development & Reform Committee, China

Abstract

As the excessive labour market segmentation has negatively affected China's social and economic development in many ways, this paper describes the status quo of China's labour market segmentation and the segmentation's history since 2000. In addition, the paper analyzes institutional factors that affect labour market segmentation among different groups and assesses the effects of specific policies that are closely related to the development of the labour market. More specifically, this paper reviews key labour market policies and programs introduced during the last decade and analyzes the impact of the Minimum Wage Policy, the Labour Contract Law and the Household Registration System (hukou) on labour market segmentation. At last, it offers several policy recommendations to reduce the China's labour market segmentation.

1. Introduction

Labour market segmentation is one of the core themes of economic theory and policy, as it is part of a wider set of studies examining the question of how the labour market in one country is operated, a subject of long-time interest to labour economists in the world. Since the introduction of economic reforms and the open-door policy, China has achieved substantial economic growth but also experienced significant labour market segmentation, particularly since the late 1990s. Today, it is widely acknowledged that China is one of the world's most segmented labour markets (Cai, et al., 2003), e.g. the separation of the labour market into sub-markets or segments.

In China, the segmentation primarily concerns different worker types, such as urban local workers vs. migrant workers, formal vs. informal workers and contract workers vs. dispatched workers (those employed through employment agencies on a temporary basis), although such workers perform the same du-

ties as regular workers. Therefore, China's labour market is primarily segmented into formal and informal, regular and irregular and migrant and native workers in the different industries and occupations. Moreover, the excessive and increasing segmentation has negatively affected China's social and economic development in many ways. The increasing segmentation has eroded the social awareness of equity and justice (Yao, 2004), caused increasing amount of social conflicts and failures of social cohesion (Li and Li, 2010), and resulted in increasing income inequality and employment discrimination for the disadvantaged groups (Li and Luo, 2010). Moreover, today, China is troubled by fundamental economic structural imbalances that are closely associated with excessive segmentation, including over-investment, a low consumption rate, over-saving, and a high dependence on external demand (Perkins, 2012).

In total, the segmentation of the Chinese labour market is acknowledged by many labour

economists. However, the segmentation is diversified across sectors and population groups. Moreover, the effects of labour market segmentation on unemployment, particularly for specific groups, and other aspects of labour relations remain largely unanswered questions. These questions possess particular relevance in light of the recent global crisis. A better understanding of how segmented labour markets fared during the crisis is required. In addition, new policy responses must be sought.

This paper aims to describe the status quo of China's labour market segmentation and the segmentation's history since 2000. In addition, the paper analyzes institutional factors that affect labour market segmentation among different groups and assesses the effects of specific policies that are closely related to the development of the labour market. More specifically, this paper reviews key labour market policies and programs introduced during the last decade and analyzes the impact of the Minimum Wage Policy, the Labour Contract Law and the Household Registration System (hukou) on labour market segmentation. The implications of these policies and programs for labour market segmentation are discussed.

The paper primarily focuses on labour market segmentation at the individual or household level and investigates how key institutional factors affect the process and outcome of labour market segmentation based on an analysis of microeconomic datasets.

The paper is structured as follows. The following section describes the evolution of institutional segmentation in China. Section 3 provides a brief introduction to the datasets. Section 4 evaluates the effect of policy on labour market segmentation using

the microeconomic datasets, and suggests institutional measures to address labour market segmentation. Finally, section 5 summarizes and offers policy recommendations regarding China's labour market segmentation.

2 Evolution of Institutional Segmentation

2.1 Institutional segmentation types

Many factors account for labour market segmentation in China, including demographical, regional, and socio-economic factors. However, economists and sociologists agree that no single factor plays a fundamental role. As Aslund and Skans (2010) note, one decisive but neglected factor that explains labour market segmentation is policy. Acemoglu et al. (2005) and Card (2002) also emphasise the important role of public policy in labour market analysis. At present, many institutional factors restrict the development of the labour market, and, in China, institutional segmentation is the labour market's main characteristic (Lai, et al., 2012).

The institutional segmentation of China's labour market has two dimensions: horizontal and vertical segmentation.

Horizontal segmentation exhibits three aspects (Fig. 1), including ownership division, urban-rural dual separation and industry/oc-

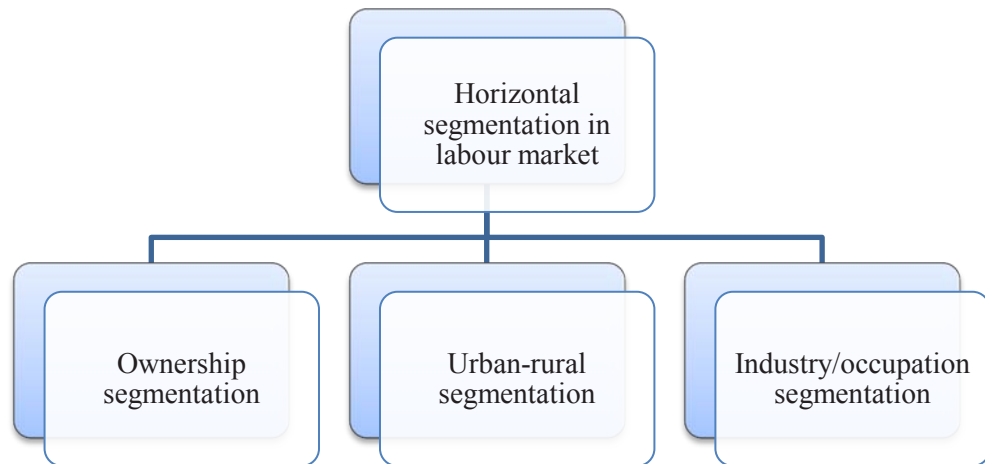


Fig. 1. Labour market segmentation in the horizontal dimension

Source: own elaboration.

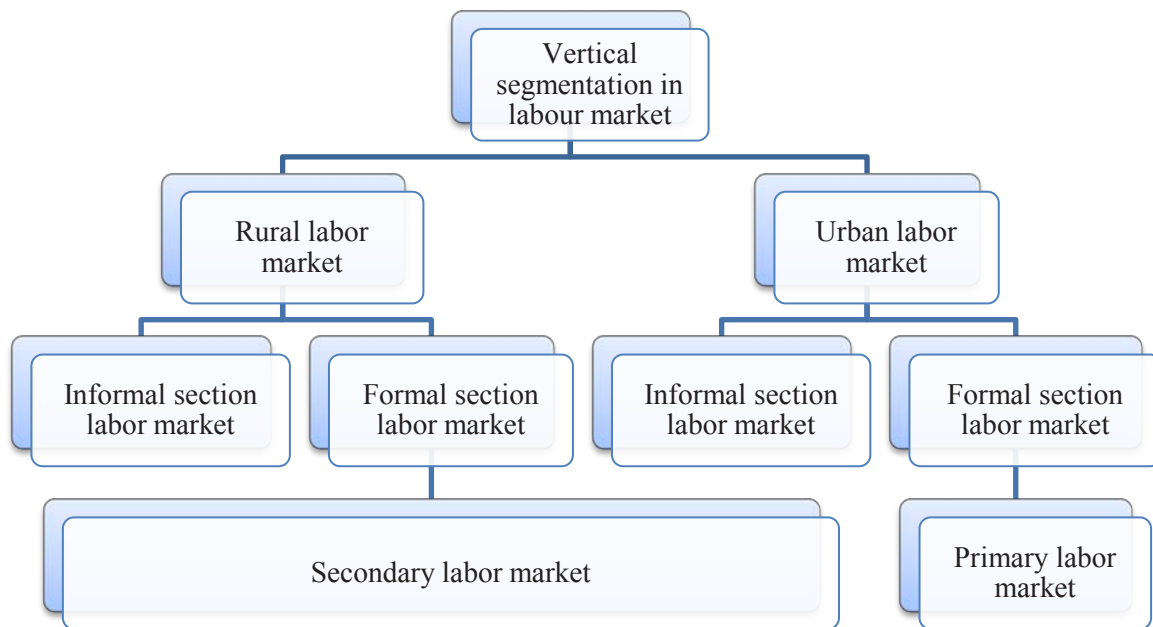


Fig. 2. Vertical segmentation in the Chinese labour market

Source: own elaboration.

cupation segmentation, as workers can't move freely between those segments.

In addition, we can divide the overall labour market segmentation into three vertical dimensions, including urban-rural segmentation, sectional segmentation and institution segmentation (Fig. 2).

2.2 Basic labour institution and policy in China

Based on the institution/policy segmentation frame presented above, we discuss specific policies that affected the labour market segmentation in the past and continue to exert an effect today. In the last decade, China has introduced a series of development strategies and policies that aim to mitigate segmentation. Overall, these policies fall into two categories: general policies that indirectly affect labour market segmentation and specific policies that directly affect labour market segmentation.

General policies. Beginning in 2000, China introduced a series of regional development strategies, including the *Western Development Strategy* (2000), the *Strategy to Revive the Northeastern Industrial Base* (2003), and the *Strategy for the Central China Emer-*

gency (2006). In 2001, China also issued an *Outline for Poverty Alleviation and the Development of China's Rural Areas* (2001-2010). In addition, China launched the "Socialist New Countryside Construction" project to promote development in rural China and mitigate the urban-rural disparity. Moreover, the reform of the educational system has a significant effect on labour market segmentation because the tuition fee exemptions for compulsory education and the expansion of college and vocational education may affect the labour market segmentation (Lu et al., 2012). Rural land system and resource system reforms have also been introduced in many provinces, which benefit rural inhabitants.

Special policies. Recently, the Chinese government issued *Minimum Wage Rules* (2004) and the *Labour Contract Law* (2007) and conducted many pilot projects regarding the Wage Negotiation System in several coastal provinces. These measures were considered to be useful to protecting the rights of employees and had important implications for mitigating labour market segmentation. In addition, the residence registration system regulations (*hukou*) have been relaxed to a certain

degree in most small cities and towns during the last decade. Moreover, since 2005, many prefecture-level cities have begun to abolish the strict hukou system. Recently, Chongqing and Chengdu were approved as National Experimental Zones for Coordinating Urban-rural Development, which allows the governments of the two cities to take further steps to reform the hukou system.

Labour Contract Law and its evolution. In 1994, China first passed the Labour Law, which was enacted on 1 January 1995. The new law established a unified legal framework for labour relations and the safeguarding of worker rights (Ho, 2006). The law expanded on earlier labour regulations, such as the 1986 regulations on labour contracts, the 1992 Trade Union Law, and the 1993 Regulations on the Handling of Enterprise Labour Disputes. The law established equal rights in obtaining employment, the right to a safe workplace, the right to social insurance and welfare, the right to bring labour disputes for resolution, the right to a minimum wage, and the right to “equal pay for equal work.” Although the law’s implementation has been imperfect, the law has played an important role in establishing a legal basis for worker rights. Significantly, the law also established a framework for the equal treatment of workers across ownership sectors. In addition, the law permits the no-fault dismissal of workers in response to changing economic conditions, which facilitates economic restructuring (Cai et al., 2008).

However, ten years later, with the continuing development of the economy structure, employment patterns have changed significantly. Moreover, the Labour Law was too general to cope with labour relationships in practice, and the law was unable to address the new issues that emerged with the development of the market economy, such as dispatch employment, free labour migration and collective bargaining by labour. Specifically, the number of new unemployed workers increased as a result of the rural surplus (labour

transformation, which shifted workers from rural to urban areas). Meanwhile, illegal employment relationships have substantially increased because of the oversupply of labour during the past few years.

The last two decades have witnessed the most important changes in China’s labour market policy, that is, the replacement of life-long with contract-based employment and of government job assignment with the labour market. Such changes reflect the paradigmatic shifts in China’s labour policy in the reform era.

To address the new problems of the labour market, individuals increasingly hope to reform the labour regulations and update the Labour Law to suit the new conditions. In addition, within the policy context of promoting economic growth while maintaining social stability, both policy and law have been coordinated and augmented to stabilize labour relations and protect labour rights.

Given the socioeconomic circumstances and the underdevelopment of the labour rules in China, the labour policy required updating to suit the new economy. Based on the recent socio-economic developments, the NPC committee introduced a new Labour Contract Law on 1 January 2008, which improved the regulation of the labour contract system. Under the new labour policy paradigm, the role of law in labour relations and other labour-related affairs has been strengthened (Ngok, 2008).

The minimum wage policy and its evolution. At present, 80 percent of the countries in the world had the Minimum Wage Regulation, while it was firstly committed in China in 1984. Afterwards, China formally launched *Labour Law of China* on June, 1994 to confirm the minimum wage institution by legislation. Since then, certain Chinese cities have implemented a minimum wage policy. Based on this practice, on 1 March 2004, a national minimum wage regulation was introduced. Currently, almost all Chinese cities have a minimum wage standard according to the Minimum Wage Regulation.

Generally, according to the Minimum Wage Regulation, the minimum wage standard should consider inflation, the cost of living, the average wage, unemployment and the economic development level. In addition, the municipal minimum wage should be adjusted regularly according to changes in economic conditions.

However, with respect to the policy's practical implementation, as result of imbalances in employer-employee relations and an imperfect collective bargaining system, some enterprises attempt to circumvent the regulation in various ways. As a result, the real wages of a large number of workers remain below the minimum wage standard, which indicates that the law is not effectively implemented (Ngok, 2008). In addition, certain enterprises extend the working hours and increase the labour intensity, although these enterprises abide by the minimum wage regulation (Hou, 2012). Moreover, it is not clearly stipulated that the regulation applies in rural areas, so the wages of many low-skilled workers in rural enterprises are below the minimum wage. Among the lowly educated workers, few are aware of the minimum wage regulation. Thus, they cannot use the regulation to protect their rights. Most

importantly, in practice, China's Minimum Wage Regulation is not strictly implemented because the punishment is insufficient to compel enterprises to abide by the law (Ho, 2006).

After becoming aware of these problems, the Chinese government began to pay more attention to the minimum wage policy. Generally, the minimum wage policy has been somewhat more strictly implemented than before. In addition, the minimum wage has steadily increased annually since 1 January 2008. As shown in Figure 3, on average, the minimum wage level increased 14.3% from January 2008 to January 2012, whereas it only increased approximately 7.8%, 11.1% and 12.4% in 1993-1997, 1998-2002 and 2003-2007, respectively. In general, from Fig. 3 and Tab. 1, the per-capita growth rate of the minimum wage since January 2008 has been much higher than during other periods.

The household registration system and its evolution. On 9 January 1958, the National People's Congress approved of the *Household Registration Regulation*, which was a formal indication of establishment of *hukou system* from that time. At the very beginning, China's household registration system was a kind of institution that used to col-

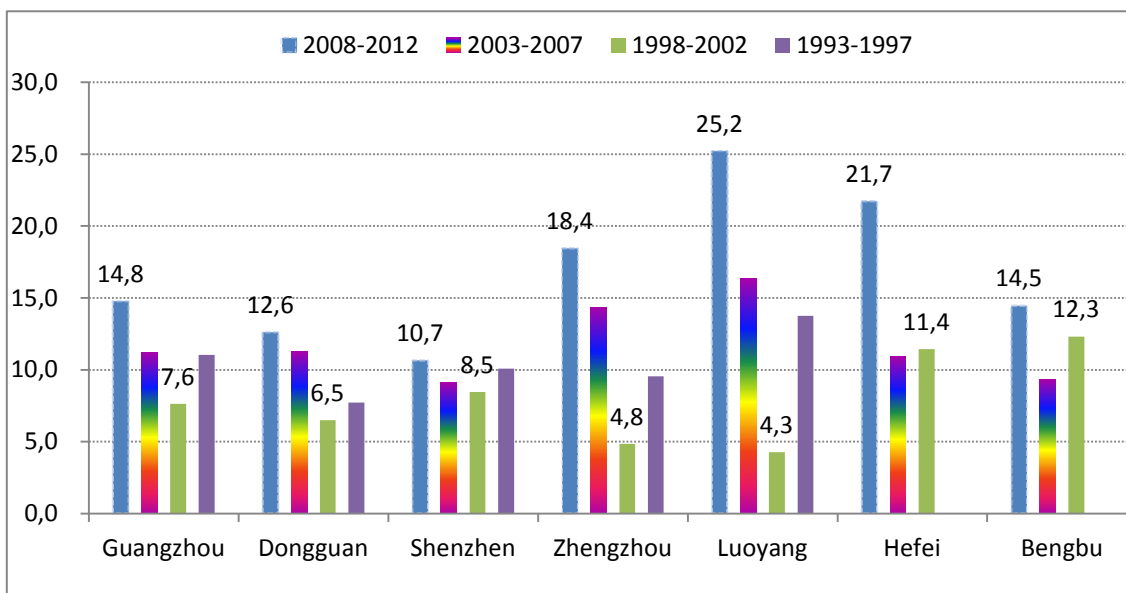


Fig. 3. Annual minimum wage growth rate

Source: Author's estimation based on NBS and local government websites.

lect and record citizens' information by central authority (Lu, 2003). Actually, it included population registration system and management system, which was the same to other countries (Knight and Song, 1999). However, afterwards, the difference lied in that hukou system in China was added by some other special features. One of them was the "affiliated function", and another was the "restriction function". Generally, affiliated function referred to various additional social welfare or benefits attached to the household registration system, while the "restriction function" was concerned with the restriction of migrants from rural to urban areas. After the establishment of hukou system, the urban and rural households not only held different identities, but also enjoyed a different variety of social welfare, thus both the identity and social welfare of urban and rural population have been identified, and the rural-urban migration and population mobility was also clearly limited from then on.

The evolution of hukou system. In 1958, the first hukou regulation was launched to formally confirm the migration approval system in the form of law. According to the regulation, the migration from rural to urban areas was prohibited. Since then, the terms "rural hukou" and "urban hukou" were put forward to restrict the migration from rural areas. It clearly stated that "farmers with rural hukou are not allowed to move to urban areas without the permission of public security departments".

With the transition from planned economy to market economy in China after 1978, changes have taken place in China and more and more attention has been paid to the urban-rural hukou segmentation. Afterwards, the serious migration restriction was loosened because of social and economic pressures. And the rural hukou population were also allowed to migrate to urban areas and able to get urban hukou if they satisfied some certain strict conditions.

On July 1985, the ministry of public security passed "the management rule of the tempo-

rary population in urban areas", and it stated that the rural hukou population also had a legitimacy to live in the urban areas.

Afterwards, a program of hukou system reform in urban areas was piloted in September 1997, which clearly stated that hukou restriction should be abolished gradually in China. More specifically, the rural population worked in cities for a certain number of years and had established residences for more than one year could apply for the urban hukou. And the ones who invested or bought commercial housing could also apply for the urban hukou in that city.

In May 2001, the State Council launched ten policies to activate the rural economy, which explicitly provisioned that rural hukou population who had formal jobs and established residences in cities should be taken into consideration to get urban hukou.

In September 2003, the revised rule of the program on urban hukou reform requested that the direction of the hukou reform was to relax the constraints to ensure more of population in rural areas to get urban hukou with the development of urbanization. It also allowed the local governments to launch the specific policies to promote the hukou system reform according to the conditions for themselves.

3 Datasets

The macro aggregate data analyzed in this paper was collected from the China Statistical Yearbook and the China Labour Statistical Yearbook issued by the NBS (National Bureau of Statistics) and the Ministry of Human Resources and Social Security from 2006 to 2011. The data includes the demographic, economic and social characteristics of China's provinces and cities. Additionally, the data provides information on many subjects, such as education, the labour force, employment, industrial production, international trade, national accounts, wages and prices.

The individual data used in this paper is drawn primarily from the Migrants Survey Data (MSD), which comprise part of the

population surveys conducted by the National Population and Family Planning Commission of the People's Republic of China (PRC) from 2010 to 2012. This survey's purpose was to examine employment, income, consumption and related economic issues in China. The survey was conducted in three stages in 2010, 2011 and 2012. The data used in this paper is primarily from the second stage. Moreover, we confine our sample to individuals aged from 16 to 60. After cleaning of the dataset for 2011, we finally obtain a total of 112,105 observations.

For the dataset described above, a stratified random sampling method was used to collect the data, and survey was used to collect information at the household and individual levels. The survey required the enumerators to visit the households to request the relevant information. In addition, specific questions related to village-level information were included in questionnaires. In general, the questionnaire was used to collect information regarding, for example, family and individual labour migration, employment, income, expenditures and consumption. Importantly, the observations were spread in all the industries, ownerships and sectors et al. (Li and Luo, 2010), and the sample was sufficiently large to capture the main features of the workers in the Chinese labour market and the market's segmentation.

4 Labour Market Policies' Effects and Institutional Reforms

4.1 Labour Market Policies' Effects

Theoretically, the strategies and policies mentioned above have some effect on the Chinese labour market (Knight and Song, 1999; Liu, 2005). However, because of data inaccessibility and methodological problems, few studies have examined the effects of these policies in an empirical and rigorous manner. For instance, Knight and Song (1999), Liu (2005), and Zhang and Gao (2009) et al., must be updated according to recent policy changes and newly accessible data and be integrated into a more comprehensive framework to obtain a

general view of the effects of these policies.

Furthermore, according to our literature survey, there is a wide divergence between practical needs and policy research with respect to Chinese labour market segmentation. On the one hand, for the sake of social equity and sustainable economic growth, China must strive to mitigate labour market segmentation. On the other hand, the current status and the future trend of labour market segmentation remain unclear, and solid data regarding the effect of the relevant policies remain insufficient.

The framework introduced below is not exhaustive with respect to all relevant policies. Only those policies and programs are considered that are clearly intended to affect labour market segmentation, have a nation-wide effect or large biased impacts on the labour market.

The effect of the minimum wage policy. The effect of the minimum wage policy on employment is analyzed as a factor that affects labour market conditions. However, their impact of the minimum wage policy on wage inequality remains ambiguous in China.

To our knowledge, only two theoretical papers have investigated the effect of minimum wage regulation on wage inequality in China, with contradictory results. The first is Zhang and Gao (2009), which demonstrates that wage inequality decreases if the wages of low-skilled workers substantially increase. The second paper, by Ding (2010), uses non-linear programming to demonstrate that the impact of the minimum wage on the labour market depends not only on the imposition of the minimum wage but also the control of certain social factors. If the implementation is intensified beyond a certain point, the impact of the minimum wage on the labour market will inevitably be substantial. Additionally, Ding finds that the low-wage enterprises suffer larger damage from the new minimum wage policy in the short term, which reduces the labour demand and subsequently worsens the wage distribution.

Several empirical papers have been devoted to evaluating the effect of the minimum wage policy on employment and income inequality. For example, Du and Pan (2009) found that the policy does not effectively influence the employment and income distribution, although the coverage and the level of the minimum wage standard have improved in recent years. The current policy, which relies on the monthly wage rate, is insufficient because certain workers tend to work more hours. Therefore, Du and Pan suggest that in practice the hourly wage rate is more appropriate than the monthly rate. In contrast, Luo and Cong (2009) construct an equilibrium model with a panel dataset in China and find that the minimum wage promotes wage growth in low-wage enterprises, such as construction and manufacturing. Generally, the policy has a small positive effect on the wage level of the low-income population, which substantially improves wage inequality.

Li and Luo (2011) conclude that increasing the minimum wage will improve the wage level of the low-income population and help narrow the wage inequality. However, this approach can have negative results if improperly implemented. For example, raising the wage

level by administrative means without considering supply and demand in the labour market and the wage distribution in local markets will result in a series of adverse effects, e.g., an increased unemployment rate for the less-educated group. Thus, this approach is unable to increase the number of jobs available to the low-income group and narrow the income inequality, and it may decrease the low-income population's employment and increase the inequality.

Generally, the literature agrees that new minimum wage policy affects the wage of individuals. However, the question of who benefits more within a group remains unclear. That is, the impact of the minimum wage policy on employment and wage inequality remains ambiguous.

To examine whether the minimum wage policy is relevant to the disadvantaged (e.g., dispatched workers, migrants, workers without labour contracts and workers in small privately owned enterprises in specific industries or occupations), we address the following analytical issues: How strictly is the policy implemented, particularly with respect to disadvantaged workers? Who are more likely to be low-wage earners (with wages below the mini-

Tab. 1 Probit model for low-wage workers (migrants)

	Minimum wage standard in 2009			Minimum wage standard in 2011			Mean
	Coefficient	Z value	Marginal effect	Coefficient	Z value	Marginal effect	
sexm	-1.0499	-31.16***	-0.0307	-1.0677	-49.83***	-0.0951	0.5738
age	-0.1208	-11.17***	-0.0032	-0.1213	-16.9***	-0.0099	33.8242
sage	0.0019	12.89***	0.0000	0.0019	18.72***	0.0002	1221.09
edul1	-2.2367	-7.73***	-0.0250	-2.7041	-13.69***	-0.0872	0.0192
edul2	-1.7438	-12.16***	-0.0239	-1.9023	-22.32***	-0.0815	0.0466
edul3	-1.5030	-13.65***	-0.0226	-1.1643	-20.57***	-0.0635	0.0567
edul4	-1.0908	-17.85***	-0.0204	-0.9730	-25.6***	-0.0605	0.1377
edul5	-0.7157	-20.37***	-0.0198	-0.5797	-23.72***	-0.0490	0.5565
_cons	-0.8852	-1.13		1.1653	3.21***		
	N=102216; LR chi2=5801.24			N =102216; LR chi2=12511.16			

* p < 0.10, ** p < 0.05, *** p < 0.01.

Note: Many control variables are neglected in the table. For more information, please contact with the authors.

Source: Estimating data using MSD data set.

mum wage)? To answer the first question, we compute the share of workers who are paid less than the minimum wage using the MSD data from the 2009 and 2011 surveys. In addition, we calculate the share of the urban workers in 2009 as a control group. The results indicate that among the workers whose wages are lower than the minimum wage the proportion of migrants is substantially higher than that of urban workers. For instance, 18% of all of the migrant workers surveyed earned a monthly wage below the minimum wage in 2009 compared with only 5% of the urban workers for the same year. This outcome implies that the policy is not well implemented, particularly for migrant workers. Additionally, 16% of the dispatched workers earned less than the monthly minimum wage in 2009 compared with only 7% of the contract workers.

To answer the second question, we estimate the probability of workers falling into the low-wage group (a wage below the minimum wage) using the probit model. The dependent

variable (y) is a dummy 1 if the worker belongs to the low-wage group and otherwise 0. The independent variables include the following: individual characteristics (age, gender and education), employment characteristics (ownership, occupation and industry), and regional variables (province dummies). The results of the estimation can be found in Table 1 for migrant workers and Table 2 for local residents.

Based on the results of our probit model estimation, we can make the following conclusions. First, the probability of falling into the low-wage group for female workers is much larger than for their male counterparts. Moreover, the gender gap is significantly larger for migrant workers than for urban workers. Specifically, the probability of belonging to the low-wage group for females is 1%-4% higher than for males if we use the urban sample and approximately 3%-10% for the migrant sample. Second, there is a U-shaped relationship between age and the probability of falling into the low-wage group, which indicates that the

Tab. 2 Probit regression model for low-wage population (urban workers)

	Minimum wage standard in 2009				Minimum wage standard in 2011			
	Coefficient	z value	Marginal effect	Mean	Coefficient	z value	Marginal effect	Mean
head	-0.5260	-10.62***	-0.0121	0.4649	-0.5282	-15.67***	-0.0337	0.4649
sexm	-0.4952	-9.97***	-0.0119	0.5549	-0.6157	-18.13***	-0.0412	0.5549
age	-0.2410	-14.98***	-0.0056	40.8209	-0.2203	-18.34***	-0.0142	40.8207
sage	0.3000	15.06***	0.0070	17.5097	0.2697	18.15***	0.0174	17.5095
edul1	-1.5265	-10.5***	-0.0245	0.1876	-1.9385	-18.36***	-0.0814	0.1877
edul2	-1.2562	-10.76***	-0.0229	0.2488	-1.4013	-15.95***	-0.0699	0.2488
edul3	-0.9069	-7.63***	-0.0155	0.1089	-0.8963	-10.07***	-0.0433	0.1089
edul4	-0.4885	-4.83***	-0.0101	0.2364	-0.4996	-6.28***	-0.0289	0.2363
edul5	-0.2148	-2.18**	-0.0047	0.1986	-0.1706	-2.18**	-0.0105	0.1986
_cons	0.1616	0.3			1.3791	3.79***		
Observations		53499				53486		
LR Chi2		9188.51				4371.21		

Note: Many control variables are neglected in the table. For more information, please contact with the authors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: The data of urban natives comes from urban household survey in 16 provinces in 2009.

probability first decreases with age and then increases. Third, the educational level and the probability of falling into the low-wage group are negatively related: i.e. the higher a worker's education is, the lower the probability of falling into the low-wage group, particularly for the urban samples. Fourth, the probability of falling into the low-wage group varies substantially across regions, particularly for the urban samples.

Our estimation results demonstrate that young females and old workers with less education are more likely to fall into the low-wage group. That is, the unemployment rate of these groups is higher compared with other groups. Therefore, these groups will be the first victims and lose their jobs if the minimum wage is raised.

Regarding the relationship between the minimum wage standard and unemployment, this paper does not find evidence that the minimum wage standard affects unemployment. However, this outcome does not mean that the government could further raise the minimum wage standard. There are two possible reasons for the uncertain relationship. One reason is that the minimum wage in China is too low. Another reason is that the minimum wage policy was not strictly implemented in the past. In the case of the extremely low minimum wage, the relationship between wage and unemployment is no longer significant. If the minimum wage is too low to be useful, its effect on unemployment will not be significant. However, because the local governments have competed to a considerable extent with respect to raising the minimum wage during the last four years, in both cases described above, the circumstances are changing.

The impact of the Labour Contract Law. After the new Labour Contract Law was adopted in 2008, there have been numerous studies (and debates) on the law with regard to the labour market segmentation. Certain studies, such as Zhang et al. (2008), believe that the labour contract law increases the labour cost and is the fundamental reason for

the large scale of enterprise bankruptcy and unemployment among the less-educated population. Moreover, the low-income population was affected first and most seriously by the labour contract law revision of 2008, particularly the irregular and dispatched workers. Thus, Zhang et al. conclude that the revised labour contract law actually strengthens labour market segmentation.

Moreover, Chen and Funke (2009) provide a theoretical framework for the inter-linkages between the labour contract law and employment. They demonstrate that the new labour contract law has only a small effect on employment in the fast-growing Chinese economy. Rather, induced unit labour cost increases may adversely affect employment and increase the income inequality.

In contrast, Wang et al. (2009) believe that the new labour contract law offers workers increased employment security and income protection because the law encourages workers to use the courts and the trade unions to press their claims. Additionally, Becker and Elfstrom (2010) emphasize the increasing number of labour contracts because of the new labour contract law. They also suggest that the government officials and the trade union cadres must focus not only on contract coverage but also the process of signing contracts on the basis of the new law.

We summarize the effect of the current labour contract law in China as follows.

First, one group directly affected by the new Labour Contract Law is the enterprises that employ dispatched workers. These enterprises are required to revise their arrangements with dispatched workers and cease to employ dispatched workers in positions that are not temporary, ancillary or alternative. (The term "labour dispatch" refers to the practice of hiring employees through an employment service agency as opposed to direct employment). The enterprises must directly hire these staff members or consider alternative solutions, such as outsourcing businesses, which engaged a large number of dispatched employees under the

previous legal regime (Ellison and Sun, 2012).

Second, certain small or medium-sized firms are likely to close if they do not meet the new requirements for obtaining official permits. Although certain large firms may find it easier to obtain the permits, their businesses are likely to shrink significantly because these firms will no longer be able to employ a large number of employees under an informal arrangement (Hou, 2012).

Third, “equal pay for equal work” is a principle of the current Labour Contract Law. In practice, less favorable pay and employment benefits for the segmented workers are common. To prevent this practice, the new law states that the compensation paid to the segmented workers must be consistent with the principle of equal pay for equal work: i.e., the same wages paid to a contract worker must be paid to a dispatched worker in the same or a similar position. Furthermore, the new law restricts the use of dispatched workers by stipulating that the related benefits and subsidies should also be provided to employees even in temporary, ancillary or alternative positions. In addition, the law specifies the definitions of “temporary”, “ancillary” and “alternative”, which were not clearly defined in the previous Labour Contract Law.

Fourth, many unskilled workers must return to their rural villages because it is impossible to find a job in the urban labour market. Under the current Labour Contract Law, the informal employment of unskilled workers without labour contracts by certain small or medium-sized firms is no longer allowed. Therefore, the enterprises must dismiss such low-productivity workers because of the increasing labour cost.

Fifth, the current Labour Contract Law promotes the relocation and upgrading of the industries. Under the new law, enterprises must substitute capital for labour because of the increasing labour cost. Therefore, more and more enterprises in the coastal areas must relocate to regions where labour costs are lower and upgrade from labour-intensive industries

to capital-based industries. Meanwhile, certain employers will be required to close their enterprises and shift to other cities in the western regions (Lai et al., 2012).

Sixth, the rights of workers in small privately owned enterprises are substantially better protected and guaranteed than previously. The employers must pay their employees on time and in full in accordance with the new Labour Contract Law. If the employer fall into arrears with remuneration or fail to pay in full, the employee may apply to the local People’s Court for an order to pay. Moreover, according to the current Labour Contract Law, the employers must strictly implement the work quota standards and neither directly or indirectly forces employees to work overtime. If the employers require the employees to work overtime, the overtime must be compensated in accordance with the relevant regulations. Moreover, most of the segmented workers (e.g. dispatched workers, migrants and workers without labour contracts) in privately owned enterprises experienced uncompensated overtime work in the past. Thus, the current new law’s updated overtime regulations improve the rights of segmented workers.

The effect of the household registration system on the labour market. To a large extent, the unequal allocation of social resources is the main reason for the ownership segmentation and the urban-rural inequality. In the ownership and urban-rural segmentation structure, a social resource is not distributed by the market but by the government according to the principles of dual segregation (Lu, 2003). At first, the implementation of the hukou system was supported by the rationing system, which was established in 1955. Under the rationing system, staples, such as grain, meat, cooking oil, sugar and cotton, could only be purchased in state-owned shops using ration coupons. Disadvantaged individuals, such as workers in privately owned enterprises, rural residents and dispatched workers, were excluded from the rationing system, which resulted in inequalities in income and access to

basic consumer products.

Today, only those individuals who hold urban hukou and work in state organs, public institutions, and natives in large state-owned enterprises (SOEs) can access the complete array of state-supplied social services. Individuals who hold rural hukou in small privately owned enterprises cannot access all social services. Residents with urban hukou have better resources and the advantages of various types of monetary subsidy, labour welfare, health insurance and other preferential privileges. In contrast, individuals with rural hukou cannot use these resources, which directly increase the urban-rural segmentation.

In addition to the effects described above, the policy could also produce certain serious social effects. Today, discrimination between urban and rural hukou is common in China, particularly when individuals are seeking employment. Individuals who hold rural hukou receive lower wages than those who hold urban hukou, even when abilities and work positions are the same (Alexander and Chan, 2004). More importantly, to guarantee a stable high urban employment rate in certain cities, direct administrative measures are employed to restrict the migration of farmers to the cities or prevent them from entering the more desirable industries and jobs. In addition, certain economic instruments are deliberately used to increase the migration cost. For instance, migrant workers are required to pay a management fee if they wish to migrate to a city. Moreover, migrants face discriminatory treatment in social services, rights protection and employment, although they may have the same abilities as their non-migrant counterparts (Lu, 2003) and are restricted to specific industries and occupations in the labour market.

Overall, strong evidence of hukou discrimination is found when comparing the treatment of the migrants and the natives. In sum, although the hukou system has been weakened as a migration control tool, the system continues to discriminate against the rural

hukou population and places temporary rural migrants in a disadvantageous social and economic position.

4.2 Further Institutional Reforms

Reforming the social security system.

Our data demonstrate that most of the dispatched workers are employed for less than one year and that the mobility rate of migrant workers is also very high. Furthermore, the mobility rate for segmented workers (e.g. the dispatched workers, the migrants and workers without labour contracts) was even higher during the financial crisis. Given the integrated social security system, the segmented workers are unable to transfer their social security status when they move to another city. Therefore, increasing the portability of social security is highly important for the segmented workers. Additionally, we suggest that the security level be increased for the segmented workers to narrow the striking gap in the social security level between different population groups. Moreover, the government at all levels should contribute more to raising the subsidy for the segmented workers in the labour market.

Enforcement of the labour market legislation. According to the requirements of the *12th Five-Year National Development Plan*, China should strengthen the enforcement of the legislation that is already in place. In particular, all levels of government should introduce related local legislation with respect to community services, pension services and other labour services. Additionally, all levels of government should encourage enterprises, community service agencies and NGOs to develop and introduce internal legislation.

Moreover, improving the bottom-up and top-down mechanisms to encourage grassroots labour sectors and departments to participate in the formulation of industry legislation is highly important. Finally, we should coordinate related legislation and transfer successful local legislations to the national level and advance the integration of the national legislative system.

Strengthening the collective bargaining mechanism. On the one hand, it has been suggested that the position and the collective bargaining capacity of the trade unions in the labour market should be improved. First, the independence of the unions should be strengthened to establish a genuine principal-agent relationship between the unions and their members, which should increase the incentive of the unions to accomplish their membership’s goals. Additionally, more trade unions should be established in the non-public enterprises, and more attention should be paid to protecting the labour rights of part-time staff.

On the other hand, the government should grant NGOs increased freedom to assist vulnerable workers, e.g. to support the establishment of resident and villager associations and other organizations, to strengthen the collective bargaining capacity and safeguard the rights of these workers.

Additionally, the collective bargaining mechanism should be improved to ensure that employers and employees obtain fair results with respect to wage distribution and rights

protection. To help the enterprises, trade unions, and employees understand the role of collective bargaining, knowledge and training should be provided on how collective bargaining is practiced. Finally, relevant laws and regulations regarding collective negotiation should be established and improved to better guarantee worker rights in the future.

5 Conclusions and Policy Recommendations

5.1 Conclusions

Segmentation categories. Based on the analysis of the different characteristics of the labour market, we summarize China’s labour market segmentation from different perspectives. Generally, the segmentation could be divided into two categories: horizontal and vertical segmentation (Fig. 4). The horizontal segmentation reflects four perspectives widely adopted to distinguish population groups, including the urban-rural perspective, the ownership perspective, the industrial/occupation perspective, and other specific groups. Addi-

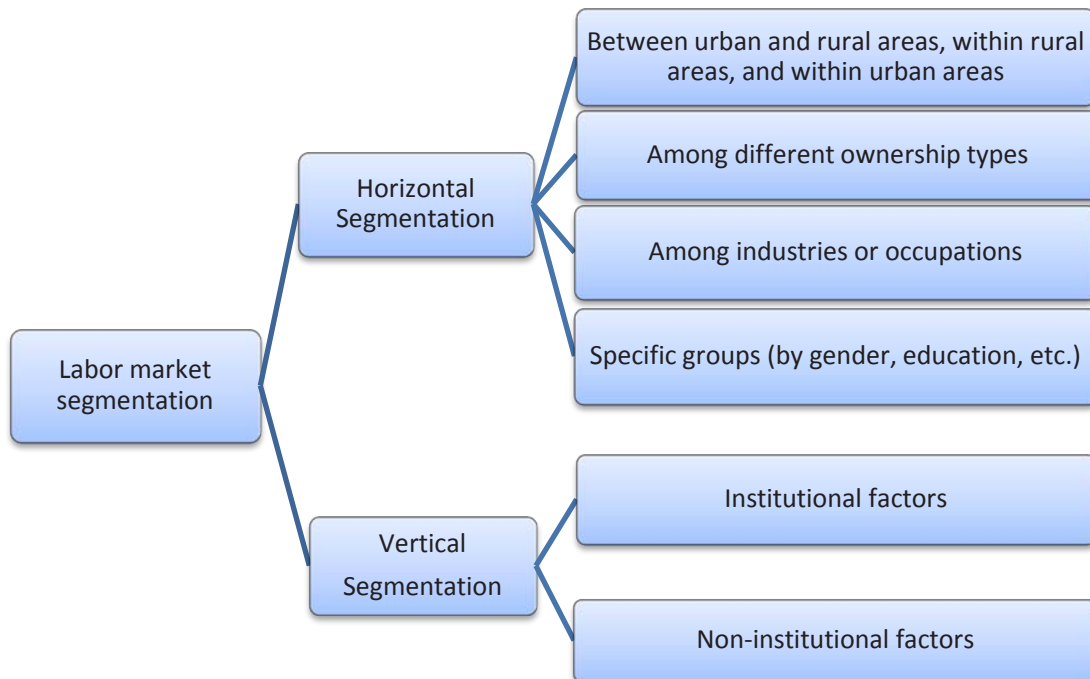


Fig. 4. Segmentation categories in China’s labour market

Source: own elaboration.

tionally, we distinguish between institutional and non-institutional segmentation in the vertical perspective. The institutional factors include various national development strategies and policies related to labour market development, whereas the non-institutional factors include urbanization, industrialization and the economy's degree of openness.

Generally, the horizontal and vertical categories capture the sources and the factors that affect labour market segmentation. Decomposing the segmentation between population groups provides intuitive knowledge regarding the sources of segmentation. Distinguishing the segmentation into institutional and non-institutional aspects helps us better understand the priorities for policy intervention and clarify the factors that result in the segmentation.

Labour market segmentation and its extent. Institutional constraints divide the labour market into two or more parts with different characteristics. In addition, there are obvious differences between the parts in terms of the wage determination mechanism, job stability and worker promotion opportunities, and the disadvantaged workers have more difficulty in moving between different markets. Therefore, the primary segmentation is reflected to a greater degree by the difference between workers in terms of, for example, employment opportunities, wage determination and accessibility to social services. Initially, the segmentation was limited to migrants and dispatched workers. Then, the temporary contract system was extended to other workers. Generally, segmented workers (e.g. dispatched workers, migrants, workers without labour contracts and workers in small privately owned enterprises in specific industries or occupations) are young and low skilled, and female workers are over-represented.

It is agreed that the labour market is segmented. However, the extent of the segmentation is an open question. Based on national representative household survey data, this paper analyzes the extent of the labour market

segmentation by comparing urban and rural areas, different enterprise ownership types, industries, occupations and other specific population groups.

Moreover, the sub-markets display a markedly different structure according to ownership type, labour contracts, industry and occupation, and the wage and labour allocation mechanisms of the sub-markets differ significantly. In general, the primary market has a formal internal labour market within enterprises, which is regulated by a set of detailed rules and procedures to guide employment activities. However, the segmented market is consistent with the circumstances described in neo-classical economics, whereby the enterprises pay a worker market wages according to the worker's marginal contribution and marginal cost in the competitive labour market.

Overall, the labour mobility between the two markets for the segmented workers (e.g., dispatched workers, migrants, workers without labour contracts and workers in small privately owned enterprises in specific industries or occupations) is subject to strict control. However, with the development of labour market, the social security system, household registration and related labour regulations will improve, and the awareness of the employers and the social organizations (labour unions) regarding labour laws should increase. Therefore, we expect that labour market segmentation for the disadvantaged will be eased in the long term.

The factors that affect labour market segmentation. Labour market segmentation theory offers a persuasive explanation of certain segmentation phenomena that occur in fully developed economies. However, China is in a transition from a planned to a market economy. Market power has only recently begun to demonstrate its effects, and the labour market remains immature. Therefore, segmentation displays different forms: market segmentation because of the distorted industrial structure and monopolistic enterprises and institutional segmentation because

of inappropriate policies and regulations. In particular, institutional segmentation in China appears to differ from such segmentation in other developed countries because the Chinese institutional arrangement is artificially designed for non-economic purposes. Therefore, we further analyze the influence of policy and institutions on labour market segmentation in China. Using various decomposition tools and econometric methods, the paper sought to identify the sources of the segmentation in China and to examine institutional and non-institutional factors in explaining the segmentation.

Based on the analysis, we conclude that many factors, including an individual's (or a family's) demographic and employment characteristics, industrial and ownership characteristics, a community's social environment and government programs have shaped the labour market segmentation. Additionally, the economic structure, the initial conditions, and labour market institutions and policies have contributed to labour market segmentation.

Generally, labour market policies, hukou system reforms, the deregulation of the product market, and reforms in the production resources market are thought to have an immediate impact on the segmentation. Additionally, fiscal and taxation policies, the establishment of the social security system, public services policies, and social transfer schemes for socially vulnerable groups and less developed regions have significant implications for labour market segmentation. Moreover, this paper has comprehensively analyzed these factors and their dynamic effect to reveal the mechanisms of China's labour market segmentation.

5.2 Policy recommendations

Worker training. At present, there are a large number of segmented workers in China, such as dispatched workers, migrants, workers without labour contracts and workers at small privately owned enterprises in specific industries or occupations. These workers lack

the education and skills to meet the needs of technological progress and future economic restructuring. Therefore, the segmented workers should be provided training or educational opportunities to improve their skills and increase their ability to acquire new knowledge and adapt to modern technology and new industrialization.

In particular, the central and local governments should initiate new training programs and improve existing programs for these workers. In particular, the quality of training should be improved. Additionally, non-profit training institutions should be treated preferentially, and financial subsidies should be increased to reduce the cost of living. Finally, the vocational skills training program and the national vocational qualification certificate system should be combined to encourage segmented workers to participate in the training programs.

Subsidizing vocational education. Vocational schooling is an important means to train skilled workers in China and could be greatly expanded. For example, additional highly skilled farmers could be trained to work with modern agricultural technology, which would support human capital accumulation in agriculture, new village construction and rural economic development. Additionally, expanded vocational training could provide modern skilled workers for the urban industries. More importantly, updating and upgrading the vocational schools would help increase worker abilities and wage levels and thus reduce the segmentation in the urban labour market. Therefore, the government should consider subsidizing vocational education.

Reforming the hukou policy. The household registration policy is the simplest and most fundamental system relevant to China's labour market segmentation because the policy discriminates against the segmented workers (e.g. dispatched workers, migrants, workers without labour contracts and workers in small privately owned enterprises in specific industries or occupations). Under the poli-

cy, the segmented workers are not treated the same as other workers with respect to employment opportunities, wage determination and access to social services. Thus, the policy forces such workers to reside on the urban margins and in social isolation. Additionally, the discriminatory hukou policy results in dual or multiple segmentations, which cause labour immobility and a striking income inequality. Therefore, the hukou system's reform and the establishment of a fair, competitive and unified labour market are increasingly important for China.

Guaranteeing equal opportunity. According to the hukou policy, a child's hukou category is determined by that of the child's parents. Thus, worker segmentation and a subsequent descent into poverty or the low-wage trap may be passed from one generation to the next. Because the mechanism is virtually automatic, the disadvantaged are unable to escape the trap without assistance. Therefore, to help the segmented workers avoid this fate, the government should endeavor to ensure fair and equal opportunity for all Chinese citizens.

In our opinion, the government could provide a health subsidy to the segmented workers before they enter the labour market. Afterward, when the workers enter the urban labour market, the government should assist the dis-

advantaged by providing on-the-job training. Such actions are basic to social equality and fundamental ways to assure fairness from the start. Additionally, to assist the young segmented workers who have already joined the labour market, the government could focus on ways to increase their opportunities, personal development and income, including more vocational training, better healthcare, increased job opportunities and more comprehensive social services (Li, 2011).

Furthermore, the government could promote job mobility among different social classes under the premise of a fair starting point to guarantee that each citizen has the opportunity to climb to the upper classes, particularly the segmented workers. Only in this way can we ensure that the disadvantaged are not destined to remain at the bottom of society and that the advantaged do not permanently occupy society's highest ranks.

In conclusion, the government should develop policies to provide an institution that operates fairly from the start and guarantee regular labour mobility among the different social classes, so as to overcome the vicious cycle resulting from the hukou policy and other mechanisms, thus to realize a more inclusive growth and a benign social development in the future.

Tab. 3 Definition of variables

Variable definition	
Dependent variable	
lwage	Dummy variable: low-wage workers =1. We define low-wage workers as the population that below the minimum wage standard in each city.
Individual level variables	
Sexm	Dummy variable: male=1
Age	Individuals' age
Sage	Age square
Marry status	Dummy variable: being married=1
Education level	Six level of education
Head	Dummy variable: household head=1
Other variables	
Regional effects	Dummy variables for the province
Other effects	Dummy variables for the ownership, occupation and sector

Acknowledgements

We thank ILO for funding this paper. And great acknowledge should be given to Dr. Chang-Hee Lee and Sher Verick who provide detailed and constructive comments on the paper.

References

- Acemoglu D., Johnson S. and Robinson J.A. (2005). *Institution as the Fundamental Causes of Long-Run Growth*. *Handbook of Economic Growth*, in Aghion. P and Durlauf. S, Eds., North Holland, 2005, pp. 1-4.
- Alexander P, Chan A. (2004). *Does China Have an Apartheid Pass System?* *Journal of Ethnic and Migration Studies* 30, pp. 609-629.
- Aslund, Olof and Oskar Nordstrom Skans (2010). *Will I See You at Work? Ethnic Workplace Segregation in Sweden*. *Industrial and Labour Relations Review* 63 (3): 471-493.
- Becker Jeffrey, Elfstrom Manfred. (2010). *The Impact of China's Labour Contract Law on Workers*. *Globalization and the Workplace*. 2010
- Cai Fang, Du Yang, Wang Meiyan. (2003). *The Political Economics of Labour Migration*. Shanghai: SDX Joint Publishing Co., pp. 184-199 (in Chinese).
- Cai Fang, Park Albert, Zhao, Yaohui. (2008). *The Chinese Labour Market in the Reform Era*, In Loren Brandt and Thomas Rawski, eds. *China's Great Economic Transformation* (Cambridge University Press).
- Card David. (2002). *Skill-Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles*. *Journal of Labour Economics*, Vol. 20, No. 4, pp. 733-783.
- Chen Yu-Fu, Funke Michael, (2009), *China's New Labour Contract Law: No Harm to Employment?* *China Economic Review*. Vol 20, Issue 3, 2009(9), pp. 558-572.
- Ding Shouhai, (2009). *An Analysis of Minimum Wage Effects on the Labour Market—Effect of Interaction with the Law of the PRC on Employment Contracts*. *Social Science in China*, 2010(1), pp. 85-102 (in Chinese).
- Du Yang, Pan Weiguang. (2009). *Minimum Wage Regulation in China and Its Applications to Migrant Workers in the Urban Labour Market*. *China & World Economy*. Vol 17, Issue 2, p 79-93.
- Ellison Minter, Sun Nancy, (2012). *Draft Chinese Labour Contract Law amendments aim to improve worker protection*, 16 July 2012, <http://www.lexology.com/library/detail.aspx?g=87daf6fc-ed8a-4e02-bb6b-a638126618c8>.
- Ho, Virginia. (2006). *Labour Law in China's Reform Era: The Evolving Legal Framework for Labour Rights*. Unpublished manuscript.
- Hou George, (2012). *The Vulnerable Dispatched Employees in China. Perspectives in Responsible Sourcing*. <http://csc.typepad.com/responsiblesourcing/2012/04/the--vulnerable-dispatched-employees-in-china.html>.
- Knight John, Song Lina. (1999). *The Rural-Urban Divide: Economic Disparities and Interactions in China*. Oxford University Press, Oxford and New York.
- Lai Desheng, et.al. (2012). *A Paper on Labour Market in China*, Beijing Normal University Press (in Chinese).
- Li peilin, Li wei, (2010), *Economic Condition and Social Attitude of the Migrants in Recent Years*. *Social Science in China*, (1):119-131 (in Chinese).
- Li Shi, (2011). *End the Vicious Circle of Poverty*. http://europe.chinadaily.com.cn/opinion/2011-12/10/content_14243717.htm.
- Li Shi, Luo Chuliang. (2010). *Re-estimating the Income Gap between Urban and Rural Households in China*, In M.K. Whyte, Ed., *One Country, Two Societies: Rural-Urban Inequality in*

- Contemporary China, 105-121, Cambridge, Ma: Harvard University Press.
- Li Shi, Luo Chuliang. (2011). *Minimum Wage Standard and Low-wage Population in China*, ILO Working Paper, September, 2011.
- Liu Zhiqiang. (2005). *Institution and Inequality: The Hukou System in China*. Journal of Comparative Economics 33. pp. 133–157.
- Lu Mai, et.al. (2012). *Income Distribution during Chinese Economy Transition-Impact Evaluation on the Income Distribution Policies*. China Development Press (in Chinese).
- Lu Yilong. (2003). *Hukou System: Control and Social Inequality*. ShangWu Press, Beijing (in Chinese).
- Luo Xiaolan, Cong shuhai. (2009). *Impact of Chinese Minimum Wage on Other Wages Based on the Effect of Catching up with Wage*. Statistical Research, 2009(6) (in Chinese).
- Ngok Kinglun, (2008), *The Changes of Chinese Labour Policy and Labour Legislation in the Context of Market Transition*, International Labour and Working Class History, Volume73 / Issue01 /March 2008, pp 45-64.
- Perkins, D.H. (2012), *Rapid Growth and Changing Economic Structure: The Expenditure Side Story and Its Implications for China*. China Economic Review, Vol 23, issue 3, pp.501-511.
- State Council. (1986). *Household Registration Rule*. China Population Yearbook 1985. Social Science Press, Beijing (in Chinese).
- Wang Haiyan, Appelbaum, Degiuli Francesca, Lichtenstein Nelson. (2009). *China's New Labour Contract Law: is China Moving towards Increased Power for Workers?* Third World Quarterly, Vol 30, Issue 3, pp. 485-501.
- Yao Yang, (2004). *Transition China: A Glance of Social Equality and Justice*, Renmin University of China Press (in Chinese).
- Zhang Jiangwu, Gao Songmao, (2009). *An Analysis on the Impact of Labour Contract Law on Labour Markets*, Chinese Journal of Population Science, No.2, pp.26-33 (in Chinese).
- Zhang Jianwu, et.al. (2008). *Labour Contract Law and its Impact on Labour Market: Analysis Frame and Its Policy Application*. Journal of South China Normal University (Social Science Edition), 2008 (5), pp.20-25 (in Chinese).