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Stabilization and structuralization: transformations of China's labor market from the perspective of new institutionalism (2006–2017)

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Abstract

Precarious work in China has drawn increasing attention, and this paper examines its changing trends from 2006 to 2017. It finds that as the state intensifies its intervention in the labor market, employers face a conflicting institutional environment with the demands of the technological environment. Employers meet the legitimacy requirements of state policy by increasing the number of stable jobs on the one hand and reducing the labor costs of unstable workers on the other hand to smooth out the increase in labor costs caused by the increase in stable workers, resulting in a stronger segmentation of the "stable–unstable" dichotomy. These two processes are more pronounced in the private sector because of the stronger tensions between legitimization and performance maximization.

Keywords: Unstable job, Segregation in the labor market, Stabilization, Structuralization

Introduction

Since the 1970s, income inequality has expanded worldwide, drawing extensive attention from governments, scholars, and the public. Many studies have discussed the causes of the expanding income gap. One of the primary causes is that the reshaping of the socioeconomic structure and institutions by neoliberalism has led to critical changes in the employment mode in the labor market. The original "closed organization" employment mode has changed to the "open market" one. The labor market tends to be unstable, which affects the income stability of the workers who could not earn more with the accumulation of past work experience.

There are two main manifestations of instability in the Western labor market: first, the number of unstable jobs is gradually increasing (Kalleberg 2012; Olsthoorn 2014); second, labor mobility becomes more frequent, and the average tenure of the same job is shortened (Hollister 2011; Hollister and Smith 2014). Undoubtedly, job mobility also more or less reflects the stability of the labor market. However, it is difficult to measure

job mobility, and long-term tracking data are needed. The "stabilization" or "instability" in this article refers only to the change in the number of unstable jobs. "Instability" refers to the increase in the proportion of unstable jobs; otherwise, it is "stability."

There is no unified definition of the so-called unstable job. Some scholars associate it with "informal employment," "nonstandard employment relations," and "flexible employment," while some scholars argue that these concepts are distinct (Kalleberg 2000; Su and Yao 2019). In general, the objects referred to by these concepts are the work patterns of manufacturing workers under Fordism. This work pattern has three characteristics: (1) Workers are employed by a certain employer for a long time, and the employer provides them with stable economic remuneration, social insurance, and vocational training; (2) Workers are usually full-time workers with fixed working hours; and (3) The workplace is often fixed, and they work in factories or offices (Edgell 2009:165). Therefore, "unstable job" often refers to more flexible or de-standardized work in terms of its contractual relationship, working time, and workplace, specifically including part-time work, temporary workers, contract workers, labor dispatch workers, and self-employment. (Kalleberg 2000).

Some scholars suggest that "stable work" and "unstable work" have formed a new dual division structure in the labor market and become an important structural source of social inequality (Atkinson 1984; Kalleberg 2003; Hudson 2007). Compared with "stable work," "unstable work" is often a job with worse quality; its economic remuneration, social welfare level, and training and promotion opportunities are limited (Kalleberget al. 2000; Kauhanen and Nätti 2015). Employees' organizational commitment and physical and mental health levels also are lower (Drobic et al. 2010; Rohde et al. 2016). Few studies have explored whether the division of the "stable–unstable" dual structure is enlarged. This issue cannot be ignored, as the larger the division of the dual structure is, the higher the structural impact on social inequality. We name the process of increasing the division of the dual structure the "structuralization" process, which shows that the opportunity gap between stable and unstable work is gradually widening.

China's labor market has undergone fundamental transformations since the reform and opening-up, from the original administrative distribution and highly stable redistribution system to the market distribution and diversified and flexible market system. The so-called iron rice bowl jobs decrease, and the number of "unstable jobs" increases. Workers' legitimate rights and interests are often violated, which causes many labor conflicts (Shen 2006). For the sake of social stability, the state promulgated and implemented a series of laws conducive to protecting labor rights and interests in 2008, such as the Labor Contract Law, the Employment Promotion Law, and the Labor Disputes Mediation and Arbitration Law. Some studies have argued that the withdrawal of the government from the labor market will aggravate the instability and structuralization trend of "stability–instability" (Li 2018). Therefore, will the trend of instability change with the strengthening of the state's intervention in the labor market? Will the dual division structure between stable work and unstable work be resolved? This article will analyze these problems.

The following sections first present a brief review of the research on unstable jobs in China and the West. Based on this, this paper will hypothesize the changing trend of

the labor market given the changes in China's labor laws and policies in recent years and finally use five-year "Chinese General Social Survey (CGSS)" data to test the hypothesis.

Literature review

Since the 1970s, instability in the Western labor market has become increasingly evident. Why did this change occur? It is generally believed that the rise of neoliberalism has reshaped the global socioeconomic system (Centeno and Cohen 2012) and thus changed the dynamics of employers and employees. First, from the demand side (employers), since the 1980s, "shareholder capitalism," with the maximization of shareholder interests as the guide and the capital market as the center, has begun to spread around the world (Yang 2018). This new corporate governance system shifts the view of employers and managers from a long-term growth orientation to a short-term profit orientation. To increase short-term profits, employers and managers often reduce labor costs through layoffs and reducing labor welfare (Fligstein and Shin 2007). Meanwhile, the rapid technological upgrading also has reduced the value of long-term employment relations since the training and investment of employees will soon be replaced by new technologies. It persuades employers to be more willing to adopt flexible employment relations, including disintegrating the internal labor market, employing temporary workers or contract workers to replace internal formal workers, outsourcing non-core tasks to other companies, and purchasing goods and services from the market rather than obtaining them within the organization (Sahaym et al. 2007; Bidwell 2013).

Second, from the supply side (labor), the industrialization of education and economic globalization provide the soil for labor supply and reproduction (Standing 2012). After World War II, most countries expanded education, which cultivated an increasing backup labor force that met or even exceeded the needs of employers in the labor market, which also caused the devaluation of diplomas (Van de Werfhorst 2009; Bernardi and Ballarino 2014). With the advancement of economic globalization, capital can find cheap labor around the world, thus forming a global labor market, which means the overall expansion of the labor pool. According to data from the International Labor Organization (ILO), the global labor reserve reached 2.3 billion in 2013, which undoubtedly aggravated the trend of instability in the labor market (Jonna and Foster 2016).

Finally, from the government's perspective, neoliberalism advocates the central position of the market and market-oriented solutions and excludes the government from protecting society. On the one hand, the government has gradually relaxed its control over capital, resulting in the continuous accumulation of capital (Piketty 2014); on the other hand, the governmental laws and regulations used to regulate the labor market have been constantly eroded, and the strength of labor unions continues to weaken (Gonos 1997). The collective "social welfare system" enjoyed by American workers has been replaced by the individualistic "work welfare system" (Kalleberg 2009). Many studies show that the greater the restrictions on employers' rights are, the more the social welfare expenditure, the stronger the labor union strength, and the higher the work stability in a country, such as better job security, work autonomy, and working conditions, better interpersonal relations at work, and a stronger sense of subjective stability of employees (Anderson and Pontusson 2007; Olsen et al. 2010; Dixon et al. 2013).

In general, with the influence of neoliberalism, the power of employers is becoming stronger, and the power of employees is becoming weaker. Therefore, employers can change the social contract between employers and employees from the past and rebuild the employment relationship in a more favorable way. With the increase in the number of unstable jobs, some scholars began to examine the relationship between unstable jobs and stable jobs and regarded the two types of jobs as a new dual segregation structure in the labor market. Classical dual labor market segmentation theory divides the labor market into the primary labor market and the secondary labor market. There are important differences between the two labor markets in social resources and resource allocation mechanisms (Doerier and Piore 1971). Most subsequent studies put forward segmentation structure schemes from different perspectives, such as occupational division and occupational closure, industrial structure and industrial monopoly, or organizational structure and organizational mode (Baron and Bielby 1980; Li 2016), while neglecting the segmentation structure within the organization.

Some scholars have found that "unstable work" and "stable work" constitute a segmented structure in enterprises. Due to the particular importance of different employees to the enterprise, employers adopt different employment policies for employees, thus forming a "core-periphery" structure or an "insider-outsider" structure. Those core employees are responsible for the key tasks for the survival and development of the organization, obtain higher income, enjoy more benefits, have more training opportunities, and have more job security, while peripheral employment is the opposite (Atkinson 1984; Kalleberg 2003; Hudson 2007). Follow-up researchers further extended this new segmentation structure to the entire labor market and analyzed the difference in work quality between stable and unstable jobs (Kalleberg et al. 2000; McGovern et al. 2004; Kauhanen and Nätti 2015).

Western academia has accumulated much research on "unstable work," but relevant research in China is relatively rare. There are roughly three research approaches related to it. The first is to discuss the informal employment's scale, formation, and characteristics. In the early days, the ILO defined informal employment according to the characteristics of enterprises and called employment in small-scale enterprises informal employment. However, with the economic development, the ILO emphasized that informal employment should be defined in combination with the characteristics of enterprises and positions (Yao 2008), which makes the definition of informal employment in relevant studies vary. Nevertheless, most scholars generally believe that informal employees are disadvantaged in the labor market, and their population exceeds that of formal employees. Informal employment has played an important and positive role in China's economic development (Wu and Cai 2007; Huang 2009, 2010; Xue and Gao 2012; Wei and Yu 2012; Qu 2012; Zhang and Qin 2015).

The second approach is to discuss the impact of labor contracts on people's work quality and then analyze the influence of labor contract law on the labor market. These studies have found that compared with employees who have not signed labor contracts, employees who have signed labor contracts have a higher probability of enjoying legal protection, social security, higher income, a significantly lower probability of overtime and overwork, and a lower willingness to change jobs (Qing and Liu 2014; Sun and Li 2010; Sun and Yang 2012; Du et al. 2018). Labor contract law is conducive to promoting

the signing of labor contracts, especially long-term labor contracts (Wang et al. 2018; Sun et al. 2018; Zhang et al. 2019).

The above two approaches are usually adopted by management and economics research. Most sociological studies use field observation and in-depth interviews to analyze "unstable work" in state-owned enterprises, institutions, and internet enterprises, labor relations, working conditions, and labor processes of migrant workers, self-employed workers, and student workers. These studies focus on how the work of the state-owned sector, which was originally considered the "iron rice bowl," has become unstable and how employers persuade unstable workers to actively participate in the labor game while maintaining supervision and control (Jia 2015; Zheng et al. 2015; Su 2016; Liang 2017).

In brief, there are abundant studies on unstable work in the West, which not only discuss the trend of instability and its causes but also analyze the "stable–unstable" binary segmentation structure. However, these studies do not conduct an in-depth analysis of the trend of structuralization. Meanwhile, domestic studies rarely analyze the general situation of unstable work in China and its relationship with social inequality. Li (2016) believes that whether the job is stable has constituted a new segmentation dimension in China's labor market. The average income and human capital return between unstable and stable jobs are distinct (Li 2016). A further comparison between the mainland and Hong Kong shows that since Hong Kong implements a liberal economic policy and the Hong Kong government has low-level intervention in labor relations, there are more unstable jobs in Hong Kong than in the mainland, and the segmentation of the "stable–unstable" dual structure also is stronger than that in the mainland (Li 2018).

Jun Li's research provides an important clue to further explore instabilization and structuralization; that is, liberal economic policies may promote the trend of instability and structuralization at the same time. Because when the government no longer protects society, employers have more power to reduce labor costs and maximize profits, which can be achieved from two aspects. On the one hand, since the cost of employing unstable workers is lower than that of employing stable workers, employers will turn more stable jobs into unstable ones. On the other hand, employers will further strengthen the segmented structure between stable and unstable work and exclude unstable workers from stable work. This will lead to a large surplus population in the labor market, and employers can continuously employ them at a price lower than the market price. In addition, it will enhance production flexibility and disrupt worker solidarity and collective action. The above logic can be called neoliberalism. Does China's labor market follow this logic? Li has not performed a dynamic analysis of China's labor market, and this article intends to work on it.

Unstable jobs in China's labor market

Before the reform and opening-up, because of the existence of the planning economy and the danwei (work unit) system, there was no labor market based on the market mechanism in China's urban society. The state guaranteed life-long employment for workers through "integrated allocation." Once workers were employed, they had few opportunities to change jobs, and there was no risk of being dismissed. After the reform and opening-up, along with the economic system reform, the labor allocation and

employment relationship in China also have undergone profound changes, which can be divided into three stages.

The first stage was from 1978 to 1991, when the labor market was somewhat relaxed but still subject to many restrictions. At this stage, implementing the rural household contract responsibility system and abolishing the "send-down youth" policy caused a large amount of surplus labor in urban and rural areas, and the floating population was increasing. Meanwhile, the employment relationship in the state-owned sector began to be contractual. In October 1986, the State Council issued *Interim Provisions on the Implementation of the Labor Contract System in State-owned Enterprises*, which stipulated that labor contracts should be implemented among the newly recruited workers in state-owned enterprises. However, the danwei system as the main body in the economy did not change in the 1980s. The scope of the market distribution in the labor market was still smaller than the planned distribution. Rising township and village enterprises absorbed a large amount of rural surplus labor. State-owned and collective enterprises dominated labor employment in cities and towns (Liu 2006).

The second stage was from 1992 to 2007, when labor market flexibility was constantly increased (Li and Zhao 2012), which was reflected in two aspects. On the one hand, the labor market outside the danwei system gradually expanded. According to data from the *China Statistical Yearbook* in 2008, the proportion of urban employees in state-owned and collective enterprises decreased from 81.24% in 1992 to 24.33% in 2007. Unstable jobs accounted for most employees outside the danwei system, such as migrant workers, self-employment, and noncontract employment (Huang 2009).

On the other hand, informal employment in the state-owned sector became common. There have always been informal forms of employment in the state-owned sector. During the planning economy period, there were many forms of employment, such as temporary workers, contract workers, rotation workers, seasonal workers, family workers, outsourced workers, and odd jobs, but the number was small, and it was highly planned (Lee 2016). In 1995, the Labor Law was formally implemented, and the labor contract system was extended to all employees, establishing a two-way selection relationship between the employer and the employee. The contract system broke the "iron rice bowl" and relieved the institutional constraints of enterprises to adjust labor costs. In 1997, the reform of state-owned enterprises was accelerated, and the "grasping the large and letting the small" policy separated many state-owned enterprise workers from their stable work and life. With the advancement of the reform, more state-owned departments, especially state-owned enterprises, adopted the "dual labor system," employing a large number of informal employees or outsourcing products and services to other departments to improve production efficiency and reduce the financial burden (Jia 2015, 2019).

The third stage is from 2008 to the present. In the previous period, due to the gradual disappearance of the paternalistic danwei system and the imperfect contractual relationship in the market economy, many enterprises have tried to reduce labor costs and increase profits in various ways, which has caused many labor conflicts, posing a great threat to social stability (Shen 2006; Tong 2006; Cai et al. 2009; Huang 2010). In this case, China's labor policy began to adjust. In the first 30 years of the reform and opening-up, the main task of the country was to develop the economy when marketization was constantly promoted, and the government's restrictions on capital and labor relations also

were weakened. However, with increasingly fierce labor conflicts and rights protection struggles, social stability has gradually become the main task while keeping pace with economic development. Therefore, the state has promulgated a series of laws, regulations, and social policies to protect workers.

In 2007 and 2011, the state began implementing basic medical insurance and pension for urban residents. In 2008, a series of laws, such as the Labor Contract Law, the Employment Promotion Law, and the Labor Mediation and Arbitration Law, were implemented, which standardized the employment relationship at the legislative level and improved the protection of workers' rights and interests. Although the labor contract is one of the important contents of the Labor Law of 1995, the provisions are relatively broad, and the operability in practice is not strong (Li 2009). Many studies have shown that promulgating the Labor Contract Law has promoted the signing of labor contracts and long-term contracts (Qu 2017; Wang et al. 2018; Zhang et al. 2019). Employees who have signed labor contracts can be better protected, which in turn makes enterprises willing to increase human capital investment, increase employee insurance and benefits, pay more attention to humanized management, and finally establish an internal labor market system (Sun et al. 2018). It can be predicted that after the economic crisis in 2008, although the instability trend of the Western labor market became obvious, this trend may be curbed in China, and at least the stable work in the labor market may increase. Therefore, we propose the first hypothesis.

Hypothesis 1 After 2008, the probability of obtaining a stable job increased.

Furthermore, how does the enhanced state intervention in the labor market influence the "stable–unstable" dual structure? This article attempts to analyze it from the new institutionalist perspective. This perspective holds that the environment in which an organization survives includes the institutional environment and the technical environment. To survive, an organization must fulfill the requirements of these two environments at the same time, namely, the requirements of legitimacy and efficiency (Meyer and Rowan 1977; DiMaggio and Powell 1983). However, some organizational practices that satisfy legitimacy will damage organizational efficiency. Therefore, the organization will take measures to address this contradiction, such as "organizational de-embedding" (Meyer and Rowan 1977). In this sense, the introduction of the above laws and regulations means that the institutional environment of the employment organization has undergone an important change. To fulfill the requirements of the institutional environment, the employer must expand stable employment relationships for more employees and fulfill the obligations specified in the labor contract, increasing labor costs (Liu and Liu 2014; Shen et al. 2017). However, after decades of market-oriented reform, interest maximization has been deeply rooted in people's hearts. Employers also face performance evaluations. Therefore, how can the additional labor costs brought by stabilization be balanced? One of the methods may be to balance the entire labor cost by reducing the cost of unstable workers.

First, stable workers are generally core members of the organization and undertake key tasks for the survival and development of the organization (Kalleberg 2003; Hudson 2007). As employers increase the number of stable jobs, some non-core

employees may gradually be included among the stable workers, and the remaining unstable workers become more marginal and less important for the development of the organization. To control the employment cost, the organization may continuously reduce its income, widening the income gap between unstable and stable workers. Second, with the reduction of unstable jobs, the rest of the unstable workers mainly engage in non-technical work, which does not require high human capital or technology. Therefore, employers can further reduce the income of unstable workers with high human capital. Even if they quit the job because of dissatisfaction with the income decline, the employer can supplement the workers with low human capital, which will eventually lead to a decline in the return of human capital among unstable workers and an increase in the gap between stable and unstable workers.

In summary, with changes in the national labor policy, the employer can control the entire employment cost by reducing the overall income of unstable workers, especially the income of workers with high human capital. Thus, it causes the expanding income gap and human capital return gap between stable and unstable workers, enhancing the segmentation degree of the "stable–unstable" binary structure. Although the state can improve the contract coverage of the labor market and protect the legitimate rights and interests of more workers through regulations, it is difficult to cover the entire labor market. Moreover, the state is worried that excessive intervention will affect economic development. Therefore, whenever China's economy encounters problems, the Labor Contract Law will become the target of public criticism (Sun et al. 2018). In general, strengthening the state's intervention in the labor market will promote the stabilization of the labor market. However, it also may cause employers to transfer the increased labor costs to unstable workers, thus increasing the division of the "stable–unstable" dual structure. Thus, Hypothesis 2 can be obtained.

Hypothesis 2 After 2008, the segmentation of the dual structure of stable and unstable work increased.

Hypothesis 2.1 The average income of stable workers is higher than that of unstable workers. After 2008, the income gap between them expanded.

Hypothesis 2.2 The human capital return of stable workers is higher than that of unstable workers. After 2008, the gap between the human capital return of stable workers and that of unstable workers widened.

Of course, there are various employers in the labor market. Although most workers are employed in China's private sector, the number and proportion of employees in the public sector are higher than those in Western countries. It is generally believed that the public and private sectors also constitute a dual structure. Compared with public-sector employment, private-sector employment is different in terms of working conditions, work remuneration, social security, work mobility, and the opportunity distribution mechanism; that public–private segmentation structure has continued to present (Liu 2006; Wang 2010; Yang et al. 2011; Li et al. 2016). With

the transformation of the national labor policy, what are the differences between the stabilization and structuralization trends in the different sectors?

First, the employer of the public sector is the state, which faces greater pressure from the institutional environment. When the national labor policy changes, the public sector will respond to the state's call quickly and include the original unstable workers in the stable employment relationship. Private sectors face less pressure of legitimacy and thus have a slower speed of stabilization. However, as the proportion of stable workers in the public sector increases, the pressure on the legitimacy of the private sector will become greater. Its stabilization speed will accelerate, and finally, there will be a convergence trend similar to that of public units. Thus, Hypothesis 3 can be obtained.

Hypothesis 3 After 2008, the stabilization process of public sectors was generally faster than that of private units, but they will eventually converge.

Second, according to the logic of neo-institutionalism, does the structuralization process also appear in the public sector first and then in the private sector? In the author's opinion, the reason for the parallel changing trend of stabilization and structuralization is that the employing organization is under the pressure of legitimacy and interest maximization and has adopted flexible behavior. Undoubtedly, the conflict faced by the private sector is more intense than that faced by the public sector. The interest pursued by public sectors, especially party and government organs and public institutions, is not economic profit. Therefore, they may not strengthen the division of the "stable–unstable" dual structure to reduce employment costs. Therefore, we propose Hypothesis 4.

Hypothesis 4 In private sectors, when the number of stable jobs increases, the degree of structural division also increases; in public units, stabilization and structuralization may not occur at the same time.

Research methods

Data

The data in this article are from the "Chinese General Social Survey (CGSS)" of the Renmin University of China. The CGSS began to ask questions about job stability in 2006, and the latest released data are survey data from 2017. To systematically investigate the changing trend of unstable work in China, this article uses the data from 2006, 2008, 2012, 2015, and 2017; the data from 2010 are not included due to the lack of key questions about job stability. The analytical object of this study is limited to nonagricultural workers aged 18–60, and self-employed workers are excluded. In the data analysis process, we made weight adjustments according to the weight provided by the data.

Dependent variables

The dependent variables include two parts. On the one hand, when analyzing the stabilization trend in the labor market, the dependent variable is the type of work, whether it is a stable job or not. For the definition of unstable work, different scholars often use different standards. This research mainly defines it by the working time and contract. If the

respondent's job is not full-time or has no fixed employer (temporary worker) or fixed employer but has not signed a labor contract, this is defined as unstable work and set to 0. Other jobs are regarded as stable work and set to 1.

On the other hand, when analyzing the structuralization trend between stable and unstable work, that is, the change in the income gap and the human capital return gap between stable and unstable work, the dependent variable is work income. Given that there was a certain degree of inflation from 2006 to 2017, an inflation adjustment (based on 2006) has been made according to the consumer price index published by the National Bureau of Statistics to make each year's income directly comparable. Work income is a continuous variable; its logarithm is calculated in the model.

Independent variables

When analyzing the stabilization process, the independent variables are the survey year and sector type. The survey year is set as a categorical variable, and 2012 is taken as the reference group. The sector type is divided into public sectors and private sectors according to the ownership of the respondent's work organization. The public sector includes state-owned and collective units, while other work units are regarded as the private sector. When analyzing the structuralization process, the independent variable includes the education years in addition to the sector type. The number of education years is a continuous variable.

Control variables

In addition to the above independent variables, this research also controls the following variables of the respondents: gender, age, age squared, nationality, household registration (hukou), urban and rural areas, Party membership, and occupational stratum. Among them, age is a continuous variable, and gender, nationality, hukou, urban and rural areas, and Party membership are dichotomous variables. The reference groups are women, ethnic minorities, agricultural hukou, rural areas, and non-party members. For the occupational stratum, we first transformed it into the EGP schema according to the work information of the respondents. Then, we transformed the EGP stratum framework into five occupational strata: the nonskilled worker stratum, skilled worker stratum, general nonmanual stratum, white-collar stratum (low-level service stratum), and elite stratum (high-level service stratum), with the nonskilled worker stratum as the reference group.

Table 1 gives the descriptive statistics of the core variables from the five surveys. According to the values of the dependent variables, even if inflation is controlled, the average work income of interviewees still gradually increased. From the perspective of labor market structure, the proportion of stable jobs increased, from 36.74% to 54.93%. In contrast, the proportion of public sector employment dropped significantly, from 59.40% to 34.95%.

Further analysis shows that the proportion of stable work in both public and private sectors increased, from 45.35% to 70.82% in public sectors and from 24.16% to 46.40% in private sectors. In general, in the ten years after 2006, the proportion of stable work increased in both public and private sectors, but the overall proportion of stable work remained at only 54.93%, and there is still much room for improvement.

Table 1 Descriptive statistics of relevant variables

	2006	2008	2012	2015	2017
<i>Dependent variables</i>					
Income (log)	9.39 (0.71)	9.43 (0.81)	9.80 (0.94)	9.97 (1.13)	10.15 (1.22)
Job type (1 = Stable job, %)	36.75	48.33	53.65	52.59	54.93
<i>Independent Variables</i>					
Sector type (1 = Public sector, %)	59.40	49.47	40.90	37.61	34.95
Years of education	11.52 (3.22)	11.31 (3.40)	11.81 (3.91)	11.84 (4.01)	12.39 (3.98)
<i>Control Variables</i>					
Gender (1 = Male, %)	56.14	59.89	58.48	58.81	58.51
Age	35.09 (10.22)	36.92 (10.35)	38.84 (10.89)	38.86 (11.14)	36.15 (10.43)
Nationality (1 = Han, %)	95.75	94.95	94.19	95.01	94.57
Hukou(1 = Nonagricultural, %)	74.20	69.97	66.51	60.83	57.87
Urban (1 = Yes, %)	82.71	77.79	85.12	81.53	81.70
Party membership (1 = Yes, %)	14.25	18.20	16.37	15.12	14.90
<i>Occupational stratum (%)</i>					
Non skilled worker stratum	21.65	31.89	26.36	30.06	21.46
Skilled worker stratum	20.60	17.62	16.90	13.48	18.21
General non manual stratum	26.49	13.11	22.12	21.33	25.43
White-collar stratum	21.56	23.11	27.31	23.29	25.16
Elite stratum	9.71	14.27	7.31	11.84	9.74

The standard deviation is listed in parentheses

Results

Obtaining a stable job

First, we summarize the data from the five surveys and analyze the changes in obtaining stable work. Since the dependent variable is dichotomous, the dichotomous logistic model is adopted. Table 2 shows the analytical results for obtaining stable work. Model 1.1 shows that the coefficient of sector type is significantly positive, indicating that after controlling for other variables, the probability of obtaining stable work in public sectors was higher than that in private sectors. The reference group of the survey year is 2012. The coefficients in 2006 and 2008 are significantly negative, while the coefficients in 2015 and 2017 are positive but not significant, suggesting that the probability of obtaining a stable job in 2006 and 2008 was significantly lower than that in 2012. However, there was no significant change in the probability of obtaining a stable job in 2015 and 2017. In other words, the probability of obtaining a stable job increased significantly from 2006 to 2012 and remained relatively stable after 2012. This means that the stabilization effect brought by the adjustment of labor laws and policies was mainly reflected several years after the adjustment and then slowed down. The overall trend conforms to Hypothesis 1.

Based on the above analysis, Model 1.2 adds the interaction term of sector type and survey year. The coefficient of sector type is still significantly positive, indicating that in 2012, the probability of obtaining a stable job in the public sector was higher than that in the private sector. The interaction term between sector type and 2006 is significantly positive, and the interaction term between sector type and 2008 is not significant, which means that from 2006 to 2012, the probability of obtaining stable work in public

Table 2 Logistic analysis of obtaining stable work

	Model 1.1	Model 1.2	Model 1.3 (Public sector)	Model 1.4 (Private sector)
	B/S.E	B/S.E	B/S.E	B/S.E
Control Variables	Control	Control	Control	Control
Sector type (1 = Public sector)	0.802*** 0.058	1.084*** 0.105		
<i>Survey year (Reference group: 2012)</i>				
2006	- 1.035*** 0.082	- 0.781*** 0.131	- 1.364*** 0.108	- 0.758*** 0.140
2008	- 0.257** 0.089	- 0.221 + 0.130	- 0.429*** 0.120	- 0.162 0.139
2015	0.013 0.070	0.062 0.087	- 0.026 0.115	0.072 0.095
2017	0.019 0.068	0.211* 0.084	- 0.246* 0.108	0.203* 0.090
<i>Sector type*Survey year</i>				
Sector type *2006		- 0.499** 0.169		
Sector type *2008		- 0.141 0.182		
Sector type *2015		- 0.117 0.151		
Sector type *2017		- 0.551*** 0.142		
_const	- 4.811*** 0.369	- 4.974*** 0.371	- 2.392*** 0.599	- 6.131*** 0.503
N	13,245	13,245	5936	7309
-2Log Likelihood	15,122.18	15,089.46	6475.001	8317.053
Pseudo R ²	0.179	0.181	0.087	0.203

+ $p < 0.1$
 * $p < 0.05$
 ** $p < 0.01$
 *** $p < 0.001$

sectors was further expanded. However, the interaction item between sector type and 2015 became insignificant, and the interaction item between sector type and 2017 was significantly negative. This shows that from 2012 to 2017, there were still advantages in obtaining a stable job in the public sector, but it decreased compared with 2012. The above results show that from 2006 to 2017, the advantages of obtaining a stable job in the public sector expanded and then decreased. Why was this? Let us look further at the changing trend of stable work within the public and private sectors.

Model 1.3 and Model 1.4 analyze changes in the internal stability of the public and private sectors, respectively. Model 1.3 shows that compared with 2012, the coefficients in 2006, 2008, and 2017 are significantly negative, but the coefficient value in 2017 is small, which indicates that from 2006 to 2012, the internal stable work of public sectors rapidly expanded and then slightly decreased. Model 1.4 shows that the coefficient in 2006 is significantly negative, but the absolute value of the coefficient is smaller than that in Model 1.3, which indicates that from 2006 to 2012, the expanding rate of stable work

Table 3 Regression analysis of working income

	Model 2.1 (2006)	Model 2.2 (2008)	Model 2.3 (2012)	Model 2.4 (2015)	Model 2.5 (2017)
	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E
Control variables	Control	Control	Control	Control	Control
Sector type (1 = Public sector)	- 0.178*** 0.041	- 0.055 0.053	- 0.083 + 0.045	- 0.046 0.058	- 0.032 0.056
Job type (1 = Stable job)	0.200*** 0.034	0.329*** 0.047	0.327*** 0.038	0.302*** 0.051	0.412*** 0.057
_const	8.128*** 0.219	7.158*** 0.369	6.192*** 0.278	5.138*** 0.420	4.667*** 0.459
N	2204	1741	3141	2475	3162
R ²	0.218	0.319	0.248	0.209	0.249

+ $p < 0.1$ *** $p < 0.001$

in private sectors was slower than that in public sectors. However, unlike in Model 1.3, the coefficient in 2017 was significantly positive in Model 1.4, which indicates that stable work in the private sector continued to spread from 2012 to 2017.

The above four models show that the public and private sectors were under corresponding pressure after the change in China's labor policies, so the probability of obtaining a stable job in both sectors increased.¹ In the first few years, the pressure on the public sector was significantly higher than that of the private sector, and their stable work expanded faster. Therefore, the relative advantages gained by stable work increased. From 2012 to 2017, as the stable work in public sectors reached a certain proportion, the expansion of stable work nearly stagnated, while the stable work in private sectors continued to expand, thus reducing the relative advantages of stable work in public sectors. This result supports Hypothesis 3.

Unstable work and received income

Model 2 analyzes the income gap and its changes between stable and unstable jobs. An OLS regression model is used as the dependent variable—work income—a continuous variable. Table 3 shows the specific results of Model 2. First, in the five surveys, the work type coefficient is significantly positive, indicating that the average income of stable workers was significantly higher than that of unstable workers; the work type coefficient tends to increase overall but not monotonically. Table 3 summarizes Models 2.1–2.5 to make an interaction term model, from which we can see whether the change in the work type coefficient is statistically significant. The results show that the "work type × 2006" coefficient is significantly negative, the "work type × 2017" coefficient is positive but not significant, and the "work type × 2008" and "work type × 2015" coefficients are small and not significant. They show that from 2006 to 2012, the income advantage of stable workers expanded, but from 2012 to 2017, the income advantage of stable workers did not change significantly.

¹ Because of the page limitation, the coefficients of control variables in all models are not displayed. Readers can contact the author at: zhu-bin2015@ruc.edu.cn.

Model 3 analyzes changes in the influence of internal work types on income in the public and private sectors. Models 3.1–3.5 analyze the situation of public sectors. The results in Table 4 show that the coefficients of work type are all significantly positive, but these coefficients have not changed significantly in Table 5, indicating that the average income of stable workers in public sectors was always higher than that of unstable workers, but the income gap between them had not changed significantly over time. Models 3.6–3.10 analyze the situation of the private sector. The coefficients of work types also are significantly positive in Table 4. The results in Table 5 show that compared with 2012, the work type coefficient in 2006 was significantly smaller, and the work type coefficient in 2017 was significantly larger, which indicates that in private sectors, the average income of stable workers was always higher than that of unstable workers. The income gap between the two gradually widened from 2006 to 2017.

Unstable work and return of human capital

Another criterion to test the dual segregation structure of the labor market is to analyze whether the resource allocation mechanism of the two labor sectors is the same and whether the difference in human capital return is the main distinguishing indicator. Model 5 adds the interaction term of work type and education years based on Model 2. The results in Table 6 show that the interactive coefficient between work type and education years in Models 5.1–5.4 is not significant, indicating that the education return rate of stable workers was similar to that of unstable workers. In Model 5.5, the interactive coefficient between work type and education years becomes significantly positive, indicating that the educational return rate of stable workers was significantly higher than that of unstable workers.

Finally, based on Model 3, Model 6 adds the interaction items of work type and education years. The results in Table 7 reflect that in Models 6.1–6.5, the interactive coefficient between work type and education years is not significant, indicating that the educational return rate of stable workers in public sectors was similar to that of unstable workers. In Models 6.6–6.9, the interactive coefficient between work type and education years is not significant, but in Model 6.10, the interactive coefficient becomes significantly positive, indicating that the educational return rate of stable workers was significantly higher than that of unstable workers. Let us take another look at the change in the coefficient of education years in Models 6.6–6.10. The coefficient of education years is gradually decreasing. It even became not significant in 2017, which indicates that the education return rate among unstable workers was gradually decreasing, which may have caused the education return gap between stable and unstable workers to expand.

Generally, from the perspective of human capital return, public sectors received more stabilization pressure from 2006 to 2012. Meanwhile, the human capital return gap between stable and unstable workers is not obvious. From 2012 to 2017, as private sectors experienced greater pressure from stabilization, the human capital return of unstable workers in private sectors decreased significantly, resulting in a widening human capital return gap between stable and unstable workers, which supports Hypothesis 2.2. With the changes in the income gap and the human capital return gap between stable and unstable workers, we can conclude that the segmenting degree of the

Table 4 Regression analysis of working income based on the sector type

	Public sector						Private sector					
	Model 3.1 (2006)	Model 3.2 (2008)	Model 3.3 (2012)	Model 3.4 (2015)	Model 3.5 (2017)	Model 3.6 (2006)	Model 3.7 (2008)	Model 3.8 (2012)	Model 3.9 (2015)	Model 3.10 (2017)		
	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E		
Control variables	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control		
Job type (1 = Stable job)	0.181 *** 0.043	0.300 *** 0.061	0.187 *** 0.053	0.225 *** 0.066	0.144 * 0.070	0.216 *** 0.061	0.330 *** 0.068	0.418 *** 0.054	0.362 *** 0.073	0.577 *** 0.080		
_const	8.141 *** 0.360	6.686 *** 0.621	5.391 *** 0.485	5.111 *** 0.697	4.372 *** 0.827	7.728 *** 0.298	7.344 *** 0.430	6.469 *** 0.351	4.941 *** 0.526	4.718 *** 0.545		
N	1403	944	1316	937	1129	801	797	1825	1538	2033		
R ²	0.193	0.251	0.219	0.227	0.295	0.299	0.387	0.260	0.187	0.221		

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Table 5 Regression analysis of the change of job type on working income

	Model 4.1	Model 4.2 (Public sector)	Model 4.3 (Private sector)
	B/S.E	B/S.E	B/S.E
Control Variables	Control	Control	Control
Job type (1 = Stable job)	0.327***	0.187***	0.418***
	0.038	0.053	0.054
<i>Job type*Survey year</i>			
Job type *2006	- 0.127*	- 0.006	- 0.202*
	0.051	0.068	0.081
Job type *2008	0.002	0.113	- 0.088
	0.061	0.081	0.086
Job type *2015	-0.025	0.038	- 0.056
	0.064	0.085	0.091
Job type *2017	0.085	- 0.043	0.159 ⁺
	0.069	0.088	0.097
_const	6.192***	5.391***	6.469***
	0.278	0.485	0.352
N	12723	5729	6994
R ²	0.295	0.372	0.266

⁺ $p < 0.1$

* $p < 0.05$

*** $p < 0.001$

Table 6 Regression analysis of return on human capital

	Model 5.1 (2006)	Model 5.2 (2008)	Model 5.3 (2012)	Model 5.4 (2015)	Model 5.5 (2017)
	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E
Control variables	Control	Control	Control	Control	Control
Sector type (1 = Public sector)	- 0.179***	- 0.061	- 0.082 ⁺	- 0.042	- 0.026
	0.041	0.053	0.045	0.058	0.057
Years of education	0.062***	0.057***	0.053***	0.048***	0.049***
	0.008	0.011	0.008	0.011	0.011
Job type (1 = Stable job)	0.231 ⁺	0.559***	0.257 ⁺	0.154	0.055
	0.123	0.169	0.141	0.171	0.16
Years of education* Job type	- 0.003	- 0.020	0.006	0.012	0.028*
	0.010	0.014	0.012	0.015	0.013
_const	8.123***	7.114***	6.216***	5.199***	4.811***
	0.22	0.377	0.288	0.426	0.468
N	2204	1741	3141	2475	3162
R ²	0.218	0.320	0.248	0.210	0.251

⁺ $p < 0.1$

* $p < 0.05$

*** $p < 0.001$

Table 7 Regression analysis of return on human capital based on the sector type

Control variables	Public sector				Private sector					
	Model 6.1 (2006)	Model 6.2 (2008)	Model 6.3 (2012)	Model 6.4 (2015)	Model 6.5 (2017)	Model 6.6 (2006)	Model 6.7 (2008)	Model 6.8 (2012)	Model 6.9 (2015)	Model 6.10 (2017)
	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E	B/S.E
Years of education	0.063*** 0.011	0.062** 0.021	0.070*** 0.014	0.074*** 0.020	0.129*** 0.022	0.058*** 0.012	0.045** 0.014	0.036*** 0.010	0.036** 0.013	0.016 0.013
Job type (1 = Stable job)	0.117 0.167	0.473 0.308	0.111 0.204	0.101 0.296	0.482 0.357	0.201 0.220	0.532* 0.248	0.237 0.215	0.208 0.235	- 0.124 0.196
Years of education	0.005	- 0.014	0.006	0.009	- 0.024	0.001	- 0.018	0.016	0.013	0.059**
*Job type	0.014	0.024	0.016	0.022	0.024	0.018	0.021	0.019	0.022	0.018
-const	8.158*** 0.357	6.618*** 0.668	5.427*** 0.522	5.182*** 0.734	4.205*** 0.867	7.729*** 0.299	7.325*** 0.432	6.510*** 0.354	4.989*** 0.528	4.980*** 0.557
N	1403	944	1316	937	1129	801	797	1825	1538	2033
R ²	0.194	0.252	0.219	0.228	0.296	0.299	0.388	0.260	0.188	0.227

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

"stable–unstable" dual structure in the labor market was strengthened, which was mainly caused by the structuralization in private sectors, which is consistent with Hypothesis 4.

Conclusion and discussion

The economic crisis in 2008 caused many Americans to lose jobs and go bankrupt. Many middle-class people became poor. However, the top managers of many financial companies on Wall Street still received generous salaries. This contrast caused strong dissatisfaction and eventually formed the "Occupy Wall Street" movement. Many researchers believe that the continuous expansion of income inequality is related to changes in employment patterns in the labor market. Under the influence of neoliberalism, unstable jobs become common and constitute a new dual structure. Since the reform and opening-up, China's labor market also has undergone major changes. The "life-long" work formed under the original danwei system has gradually disappeared, and the market mechanism increasingly impacts employment relations. Will China also form a new market structure that has an important impact on social inequality? This article makes a systematic analysis of this question.

We can draw several conclusions based on the data analysis. First, two trends existed in China's labor market from 2006 to 2017. One was that the proportion of stable workers increased. The other one was that the segmenting degree of the "stable–unstable" dual structure was enlarged, specifically reflected in the income gap and human capital return gap between stable and unstable workers. In 2006, the average income of stable workers was higher than that of unstable workers, and the human capital return of stable workers was similar to that of unstable workers; by 2017, the income advantage of stable workers had expanded, and the human capital return of stable workers was significantly higher than that of unstable workers. These results are consistent with Hypotheses 1 and 2.

Second, in different sectors, the above two trends were different. On the one hand, the probability of obtaining a stable job in the public sector was higher than that in the private sector. From 2006 to 2012, the number of stable jobs in public units increased faster, and this advantage increased. However, from 2012 to 2017, the increase in stable jobs in the public sector tended to stagnate, while the number of stable jobs in the private sector continued to increase, and the above advantages declined. On the other hand, in the public sector, the division of the "stable–unstable" dual structure was relatively weak. Although the average income of stable workers was higher than that of unstable workers, there was no obvious difference in the human capital return between the two, and there was not much change in the decade studied. In private sectors, the division of the "stable–unstable" dual structure was strengthened, which shows that the income advantage of stable workers had expanded, and the human capital return of stable workers had become significantly higher than that of unstable workers. The above results generally support Hypothesis 3 and Hypothesis 4.

Why did this happen? Li (2018) suggests that in areas with less governmental intervention in the labor market, employers have stronger power to maximize profits, which can not only increase the number of unstable workers but also further discriminate against and exclude unstable workers, forming a more segmented "stable–unstable" dual structure. However, the changes in China's labor market do not conform

to the prediction of neoliberalism. With the implementation of a series of pro-labor laws, regulations, and social policies in China, the number of stable jobs in China's labor market continues to increase, but the segmentation of the "stable–unstable" dual structure is strengthened. This article attempts to explain this from the perspective of new institutionalism. When China's labor policy changes, the conflict between the legitimacy requirements and the efficiency requirements faced by employers is prominent. On the one hand, employers fulfill the legitimacy requirements of national policies by increasing the number of stable jobs, and on the other hand, they reduce the labor costs of unstable workers to suppress the rise in labor costs caused by the increase in stable jobs, which makes the "stable–unstable" dual structure tend to be solidified. The above explanation can be further tested with the difference between the public and private sectors. Since the public sectors mainly face legitimacy pressure brought by changes in the institutional environment, only the phenomenon of increasing stable work has emerged. Meanwhile, the private sectors face the pressure of legitimacy and interest maximization at the same time. Therefore, the stable work has been increased, and the segmentation in the "stable–unstable" dual structure has also been enlarged.

In summary, this article analyzes the changing trend of China's labor market and explains it from the perspective of new institutionalism. In theory, the new institutionalism theory was applied to structural and behavioral changes in specific organizations in most cases, and this article applies it to structural changes in the labor market, expanding the scope of application of this theory. At the same time, this article attempts to use neoliberalism and neo-institutionalism to summarize the logic of labor market changes in the West and China to establish a comparative analysis framework for future research. Of course, this article does not directly compare the similarities and differences between the Western and Chinese labor markets in terms of data analysis, which needs to be addressed by future research.

This article finds that the number of stable jobs increased from 2006 to 2017. Does this mean that China's labor market has become stable? As mentioned above, stabilization includes two aspects: first, the amount of stable work increases, and second, the reduction in job mobility and the extension of the average tenure of each job may mean that there is job security and that there is no need to worry about unemployment at any time. For the first factor, China's labor market has shown a trend of stabilization, but we lack adequate testing for the second factor due to data limitations. This statement may be incomplete. The comprehensive assessment of the changing trends in China's labor market needs to be supplemented by more empirical studies, especially on the issue of job mobility, which deserves close attention in subsequent studies.

Acknowledgements

Not Applicable.

This article is the phased achievement of the Youth Project of the National Social Science Foundation: "The change of income distribution gap and common prosperity in China from the perspective of financialization" (20211GS0080). This article was presented at the 2020 Annual Meeting of the Chinese Sociological Association. I am grateful for the valuable opinions provided by meeting participants and helpful comments from the anonymous reviewers. The author is responsible for the views in this article.

Author contributions

I took all responsibility for this paper.

Funding

This study was supported by the Youth Project of National Social Science Foundation "The change of income distribution gap and common prosperity in China from the perspective of financialization" (20211GS0080).

Availability of data and materials

This paper uses data from the Chinese General Social Survey (CGSS).

Declarations**Competing interests**

The author declares there is no competing interest.

Received: 9 November 2022 Accepted: 8 March 2023

Published online: 17 April 2023

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