

# The choice of atypical employment by Chinese enterprises: status and determination

LI Jing

Business School of Sichuan University, Chengdu

lijing\_scu@sina.com

**Key Words:** atypical employment; labor cost; shortage of labor supply

**Abstract.** Labor employment has been changing with the reform of the economic system. As a flexible and elastic mode of employment, atypical employment has been widely used all over the world. Based on the data from the World Bank surveying 12,400 Chinese enterprises in 2005, we find that atypical employees have a big gap with typical employees in wages and benefits but higher mobility. By exploring the causes of enterprises hiring atypical employees, we find that labor cost, overtime, labor supply, and the form of corporate ownership all have an influence on the option of corporate employment.

## Background

Atypical employment generated in the United States in the 1970s and was applied in European countries' labor market reform in 1980s. Subsequently, elastic employment was popular in the worldwide. Since the 1990s, more organizations began to employ a large number of atypical employees [1].

Chinese atypical employment began after the reform and opening-up policy. The reform of the economic system and enterprise system made labor configuration change a lot. And with "Labor Contract Law" produced and perfected, atypical employment has also been applied wider.

Atypical employment have emerged a growing trend in recent years around the world. It also becomes the focus of countries, enterprises and scholars. Ministry of Labor and Social Security .PRC calculate the atypical employees accounting for 85.5% in the emerging sector and 23.4% in the traditional sector, by using survey data of 66 cities in December 2002 [2]. It is clear that the atypical employment plays a considerable role in the whole employment system the future direction of labor employment. Therefore, enterprises and the macroeconomic will obtain a benefit by studying why enterprises hire atypical employees.

After almost 50 years development, though previous scholars also studied and discussed a lot about atypical employment, there are many issues still don't have unified conclusion. Especially in China, some study only stay on qualitative description, lacking empirical research to prove. Therefore, this study about why enterprises adopt atypical employment by using the data from the World Bank survey of Chinese enterprises in 2005 and combining with Chinese national conditions also has strong theoretical value.

## Research question

**Definitions.** Although atypical employment has been widely used in the world, people's understanding on the "atypical employment" is always vague and there is no clear definition. Overall, there are two methods to measure atypical employment. First, scholars base on service sector of practitioners to divide it, such as state sector, private sector and individual practitioner. For example, Hussmanns define it according to the rule whether the staff working in the informal sector [3]. The second dividing method is basing on the labor contract. For example, Polivka define it according to the rule whether there is a clear labor contract between the labor relations [4]. Kalleberg emphasize that atypical employment is a short-term contract [1].

The former have the disadvantage of imprecise division. For example, employment in the informal sector (e.g. private enterprise, etc.) also has long-term and stable employment. The latter's may exist some problems too. For example, much long-term and stable employment relationship

(e.g. the civil service, etc.) did not become contractual relationship in the process of institutional transformation, but many temporary workers of governments signed a labor contract.

In fact, these two methods to measure contain two similar but different concepts: informal employment and atypical employment [5]. Informal employment uses the concept that ILO reported in a survey in the 1970s more often. And atypical employment generally refers to those employees who sign the fixed-term contract or the duration of labor contract associated with certain tasks [6].

**Theory and Hypothesis.** As the subjects of atypical employment, the reasons of enterprises hiring atypical employees get more and more attention from scholars. Many foreign scholars have used quantitative data to demonstrate the reasons, but quantitative researches on firm level are rare in China. Are these reasons in foreign scholars' research could get mobility and versatility in China? Is there any other reason for companies under the background of Chinese conditions? These points will be the focus of this research.

*Reduce labor costs.* Enterprises should pay such as social insurance, welfare and other fee to regular employees. While atypical employees will not only save these direct costs, but also reduce the management fee [7-9]. Engaging employees by lower wages can reduce labor costs. Many organizations hire employees through third-party service companies, also saves the cost of human resources (e.g. recruitment, screening and training) [6]. Although a large number of scholars support this view, Cappelli and Keller thought there is no support could be found for the notion [10]. Higher pay and greater employee benefits are associated with greater use of alternative arrangements.

Hypothesis 1: Choice of hiring atypical employees is positively related with labor costs for the enterprises.

*Make up for the shortage of labor supply.* Due to frequent fluctuations in product demand, employment demand also changes often. Enterprises satisfy the constraints of change in employment demand and make up for the shortage of labor supply by hiring atypical employees [10]. In addition, enterprises making up for the shortage of labor supply are also reflected in the overtime hours. Cappelli and Keller showed higher overtime hours relevant to using atypical staffs in 2013. Moreover, enterprises inclined to employ more to improve management flexibility in some special circumstances (such as the financial crisis) [11].

Hypothesis 2: Choice of hiring atypical employees is negative related with labor supply.

Hypothesis 3: The enterprises with employees who work overtime are more likely to hire atypical employees.

*Impact of enterprises' ownership.* By using large-scale enterprises' survey data, Kalleberg and Reynolds found that small-scale enterprises are more likely to hire atypical employees [8]. Incorporated Chinese conditions into our consideration, different ownership will lead to different operating characteristics. Different forms of ownership have completely different values. It will affect the choice of employment [12]. Therefore, it is a very important factor for employment relationship in China.

Hypothesis 4: The form of firm's ownership has significant impact on the choice of hiring atypical employees.

## **Empirical findings**

**Data and variables.** This research uses the data from the World Bank surveying 12,400 Chinese manufacturing enterprises in 2005. The data covers 30 Chinese provinces in the west, east and midland, including dynamic data from 2002 to 2004. According to forms of ownership, the data divided into collective enterprises, private enterprises, foreign enterprises and state-owned enterprises.

From the above we can see, atypical employment mainly classified according to the labor contract. However, this paper in order to make the definition more realistic. We not only defined atypical employment in accordance with the contract, but also allowing the employer to combine the specific situation in the actual work with the contract. This way makes the definition have more practical significance. And the conclusions of this study are also more realistic.

### **Status of atypical employment.**

*The proportion and wages of various types of employees.*

Table1 The proportion and wages of various types of employees from 2002 to 2004

Type of Employee	2004		2003		2002	
	Proportion [%]	Monthly wage[ ¥ ]	Proportion [%]	Monthly wage[ ¥ ]	Proportion [%]	Monthly wage[ ¥ ]
Typical employee	67.57	1061.23	67.19	977.21	66.63	906.08
Atypical employee	32.39	741.86	32.78	690.50	33.34	641.30
Rural atypical worker	47.07	730.62	47.12	679.90	47.39	634.03

Table 1 shows the proportion and average monthly wage of various types of employees from 2002 to 2004. As can be seen in the table 1, the proportion of atypical employee shows a slight downward trend. This trend is in line with scholars' findings. Li Xiaoying and Zhao Zhong show atypical employment reached a peak in 2002 [13]. As Data can be seen from the table, typical employment is still predominant, and the proportion reached 67.57% in 2004. But atypical employment also can't be ignored. The proportion of it also account for nearly one-third. And rural workers become the main in atypical employment, accounting for 47.07% of atypical employees. Alternatively, we can clearly see the wage gap between typical and atypical employees. The average monthly wages of typical employees were 43.05% more than atypical employees in 2004.

*The proportion and wages of employees in enterprises of different ownership.*

Table2 The proportion and wages of employees in enterprises with different ownership in 2004

The forms of ownership	Typical employee		Atypical employee	
	Proportion [%]	Monthly wage [ ¥ ]	Proportion [%]	Monthly wage [ ¥ ]
state-owned	75.87	1192.70	24.08	732.50
collective	62.78	870.80	37.21	659.35
private	66.62	967.34	33.34	717.98
foreign	69.78	1403.79	30.18	855.16

Table 2 shows the proportion of atypical employees in state-owned enterprises is the lowest, 24.08%. However, the proportion in collective enterprises reached 37.21%. This phenomenon indicates that the type of ownership is an influential factor in the Chinese background. The impact on employment choice is worth us to in-depth research. In addition, we can find an interesting phenomenon. State-owned enterprises are most dislike hiring atypical employees, while collective enterprises are most likely to hire atypical employees. There is a large wage gap between typical and atypical employees in State-owned enterprises and foreign enterprises, while the gap between private enterprises and collective enterprises is small. This may indirectly explain that the atypical employees in state-owned enterprises and foreign enterprises will get more discrimination than in the private enterprises and collective enterprises.

*The proportion and wages of employees in different regions.*

Table3 The proportion and wages of employees in different regions in 2004

region	Typical employee		Atypical employee	
	Proportion [%]	Monthly wage [ ¥ ]	Proportion [%]	Monthly wage [ ¥ ]
eastern	67.91	1217.39	32.05	828.25
midland	67.60	884.37	32.38	667.49
western	66.61	969.37	33.34	647.24

Table 3 describes the rate of atypical employment in east, west and midland, among 30 provinces. And there is no significant difference between them. The rate is all about 67%. However, there are obvious differences in average monthly wage among the same types of employee in different regions. Both typical and atypical employees have significantly higher wages in eastern region than in the western regions. This shows that the variable for businesses hiring choices, whether to hire atypical employees with no significant impact. However, if the company has hired atypical employees, there are obvious differences in wages among different areas. There may have a close

relationship with the overall macroeconomic of local situation.

*Treatment of employee.*

Table4 Treatment of employee in 2004

Treatment	Type of employee	
	Typical employee[%]	Atypical employee[%]
Fixed salary	47.81	27.25
Promotion rate	13.14	6.47
Medicare rate	68.46	28.98

There is a clear gap in treatment between atypical and typical employees. Table 4 shows that the typical employee's fixed salary was 75.45% higher than the atypical employees. So we can see that the typical wages are more stable. In addition, typically employees were 103.09% higher in the proportion of promotion, indicating that enterprise pay more attention to typical employees and their long-term development. Apart from the fixed salary and the proportion of promotion, there also exist obvious gaps on Medicare between the two types of employees. Ratio of typical employees reached 68.46%, nearly 70%, while atypical employees were only less than 30%. Interestingly, we also found that the proportion of typical employee's promotion in foreign companies is the lowest, only 4.97%. In the private sector, the possibility of atypical employees' promotion is the highest, reaching 13.73%. According to the three sets of data, we can clearly see. Treatment of atypical employees is significantly lower and there is a large gap.

*Mobility of employee.*

Table5 Mobility of employee in 2004

Mobility	Type of employee	
	Typical employee [%]	Atypical employee [%]
Resignation	4.27%	7.85%
Dismissal	2.71%	4.02%
New enrollment	7.47%	10.82%

Atypical employment showed not only poor treatment but also strong mobility. As can be seen from Table 5, the proportions of atypical employees' resignation were 7.85%, but typically employees were only 4.27%. Combined with the higher promoted proportion of typical employees, enterprises pay more attention to long-term development of typically employees, so typically employees will have higher organizational commitment and less resignation. Atypical staffs showed a reverse trend. On the other two indicators, the proportions of atypical employees are significantly higher than typical employees. As can be seen from the three indicators in the table, both enterprises and atypical employees tend to have higher mobility.

**Regression analysis.** To examine the above assumptions in section 2.2, and to identify the reasons for company's choice, we conducted two regression analyses on four variables, such as labor supply, monthly overtime days, labor cost and the type of ownership. The two regression analyses are about whether an enterprise will hire atypical employees and the proportion of atypical employees in enterprise.

Table6 The regression results of the reason for enterprise' choice

Variable	Employ atypical staff or not		the proportion of atypical employees in 2004	
	Regression coefficients	z	Regression coefficients	t
Surplus labor supply	(-0.227)***	-6.00	(-8.531)***	-13.06
Short labor supply	(0.242)***	6.81	(3.358)***	4.44
Monthly overtime 1 to 2 days	(0.233)***	7.44	0.002	0.00
Monthly overtime 3 to 5 days	(0.295)***	8.35	(2.121)***	2.78
Monthly overtime 6 to 10 days	(0.265)***	4.78	(3.181)**	2.56
Monthly overtime over 10 days	(0.268)***	3.17	2.575	1.38
Labor cost	(-0.097)***	-4.21	(-1.985)***	-4.26
State-owned enterprise	(-0.418)***	-9.15	(-7.364)***	-9.52
Collective enterprise	-0.027	-0.55	1.652	1.47

Foreign enterprise	-0.034	-1.04	(-1.772)***	-2.69
Industry control variables	YES	YES	YES	YES
Region control variables	YES	YES	YES	YES

*Date source:* World Bank, Chinese enterprises survey (2005);

*Note:* 1. Coefficient estimates and the significance level are reported. \*, \*\*, and \*\*\* indicates the significance level at 10%, 5%, and 1%, respectively. Due to limited space, robust standard error estimates are not reported, but available from the authors upon request.

2. The base groups for comparison include suitable labor supply, monthly overtime 0 day and private enterprise.

*Labor supply.* The proportion of atypical employees rises when the shortage of labor supply happens. Compare with regression analysis in Table 6, we can conclude that the labor supply is related to corporate choice of employment and the proportion of atypical employees. When labor is short, due to the poorer treatment and higher mobility of atypical employees, atypical employment becomes an effective way to make up for the shortage of labor supply. And when supply is short, enterprises will be more inclined to hire atypical employees. We controlled other relevant variables, including ownership, industries, and regions. And we found that enterprises' choice of employment was related with the labor supply. The situation of labor supply significantly influences the selection of companies. These prove that hypothesis 2 is reasonable.

*Overtime.* The proportion of atypical employees increases with the number of overtime days, showing an upward trend. However, the increase gradually reduces. After it rises to a certain extent (over 10 days), this trend begins to decline. Controlling other relevant variables, we can find that monthly overtime is significantly related to enterprises' atypical employment. When the overtime is in the range of 3 to 10 days, it was also significantly correlated with the proportion of atypical employees (in Table 6). It can be understood as corporate atypical employment is relevant to the number of days in monthly overtime. However, typical employees can tolerate a short period of overtime (1 to 2 days per month). Only when the monthly overtime is 3 to 10 days, the proportion of atypical employees associates with overtime. In addition, when overtime is more than 10 days, companies will not increase the number of atypical employees. Because increasing atypical employees cannot solve the problem of short labor supply under this condition. Combining these data analysis, we can consider hypothesis 3 holds.

*Labor cost.* According to Table 6, we can see labor cost significantly relates to hiring atypical employees and the proportion of atypical employees. But, unexpectedly, we also found that the cost of hiring both typical and atypical employee is higher than only using typical employees. This phenomenon seems to indicate that it costs more to hire atypical employees; and when labor cost is higher, companies are more likely to hire fewer atypical employees. However, this view does not hold water for two reasons. First, this analysis forgets to compare the cost when hiring the same number of employees. Second, it is highly possible that enterprises focus on the impact of long-term development of typical staff, and those atypical employees have higher mobility. Therefore, there is not enough evidence to assert that the purpose to hire atypical employees is to save labor costs. It only proves that the choice of atypical employment has significant correlation with labor costs. So the hypothesis 1 is reasonable.

*The form of ownership.* During the exploration of reasons of enterprises' hiring atypical employees, the types of corporate ownerships, a variable marked with Chinese characteristics, is very important especially when this research is conducted in China. We can see that state ownership significantly correlates with corporate choice on employment and proportion of atypical employees (in Table 2 and Table 6). State-owned enterprises usually enter into formal labor contracts with employees. And there are some characteristics such as stable work and low staff mobility. Based on these, we can understand why state-owned enterprises don't tend to hire atypical employees. Taking the private sector as a reference, only collective enterprises tend to increase the proportion of atypical employees. Different ownership own different corporate characteristics, therefore, corresponding to different preference of employment. Combined with the above analysis, the Hypothesis 4 is established. In China, the form of corporate ownership is also related to atypical employment.

## Summary and discussion

In this research, we use the data from the World Bank surveying 12,400 Chinese manufacturing enterprises in 2005. The data covers 30 Chinese provinces in the western, eastern and midland. We can draw the following conclusion.

Firstly, there is a big gap between the average monthly wage and treatment of typical employees and atypical employees. And atypical employees have strong mobility.

Secondly, hiring atypical employees is an effective way to make up for the shortage of labor supply. And there is insufficient evidence to prove that the purpose of enterprises to hire atypical employees is to save labor costs.

Thirdly, by regression analysis, we can see that under the same industries and regions, enterprises hiring atypical employees associate with labor supply, overtime, labor cost and the forms of ownership.

According to the above findings, we have the following recommendations on three levels. The Government should strengthen relevant laws and regulations to ensure that the legitimate interests of workers. Enterprises should pay attention to improving the mental welfare of atypical employees and creating a psychological contract. For atypical employee, choosing private enterprises and collective enterprises could make more benefits.

## References

- [1] Kalleberg, A.L., Nonstandard employment relations: Part-time, temporary and contract work. *Annual review of sociology*, 2000. 26(1): p. 341-365.
- [2] Wu Yaowu and Cai Fang (2006). "Informal Employment in Urban China: Size and Characteristics" *China Labor Economics* (02).In Chinese.
- [3] Husmanns, R., Measuring the informal economy: From employment in the informal sector to informal employment. *Integration Working Paper*, 2004(53).
- [4] Polivka, A.E., Contingent and alternative work arrangements, defined. *Monthly Lab. Rev.*, 1996. 119: p. 3.
- [5] Chen Jie (2003). "Literature review of atypical employment." *Economic Perspectives* (05).In Chinese.
- [6] Lin Zhiyang and Chen Zhijin (2013). "The Influence of Non-standard Employment on Organization." *Journal of Xia Men University ( Arts& Social Sciences)* (04).In Chinese.
- [7] Houseman, S.N., Why employers use flexible staffing arrangements: evidence from an establishing survey. *Indus. & Lab. Rel. Rev.*, 2001. 55: p. 149.
- [8] Kalleberg, A.L., J. Reynolds and P.V. Marsden, Externalizing employment: flexible staffing arrangements in US organizations. *Social Science Research*, 2003. 32(4): p. 525-552.
- [9] Mach, T.L. and J.A. Holmes, The use of alternative employment arrangements by small businesses: Evidence from the 2003 Survey of Small Business Finances. 2008: Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board.
- [10] Cappelli, P.H. and J.R. Keller, A Study of the Extent and Potential Causes of Alternative Employment Arrangements. *ILRReview*, 2013. 66(4): p. 6.
- [11] Zhang Lifu (2009). "The labor relations under the diversity of employment mode." *Modern Finance & Economics*(12).In Chinese.
- [12] Zhang Yichi (2004). "The Effect of China's Enterprise Ownership upon the Relationship between the Employer and Employee-----Viewed from the Expanded Stimulation-Contribution Model." *Management World* (12).In Chinese.
- [13] Li Xiaoying and Zhao Zhong (2012). "Evolution of Employment Relations in Urban China." *Economic Research Journal* (09).In Chinese.