

Could Job Stability Alter Worker's Employment Intentions: Micro Evidence from CFPS-2018

Ziyun Wang

International College, Zhengzhou University, Zhengzhou, China

1127785829@qq.com

Abstract. This paper develops a micro-perspective indicator of job stability, and by using data from the 2018 Micro China Family Panel Studies (CFPS-2018), it empirically examines the impact of job stability on non-farm employment of urban and rural residents in China. The results showcase: Firstly, job stability is a core factor of labor force participation at present; secondly, based on the heterogeneous exploration of urban-rural household registration differences and skill levels, it is found that job stability promotes non-farm employment more for the rural population than urban population; in the meanwhile, the impact of job stability on non-farm employment is greater for low-skilled labor force than for medium-skilled labor, but for high-skilled labor, the impact is the lowest; Thirdly, this paper proposes policy suggestions for enhancing job stability and workers' employment participation.

Keywords: Job Stability; Non-farm Employment; Rural Family; Urban-rural Gap.

1. Introduction and Literature Review

As the biggest project for people's livelihood and an important guarantee for social stability, employment plays crucial role in economy and thousands of households. "Achieving fuller employment with higher quality" is important for the main goal of economic and social development in the 14th Five-Year Plan period. In the economic sense, employment quality mainly refers to the degree of matching between labor forces and job positions. When the level of human, capital of labor force could match the level of labor skills required for a job, such labor force could increase and maximize productivity with the expected labor remuneration, meanwhile, both employers and employees would be willing to continue the employment relationship and finally achieve employment stability. Hence, the inherent mechanism in studying study stability as a core indicator of employment quality could be reflected (Mortensen, 2011).

Since the reform and opening up, China's urban labor force market reform has solved the problem of rigid labor resource allocation under the former planned economy system, meanwhile, it has effectively enhanced the flexibility of labor force allocation and overall economic operation efficiency; but at the same time, it led to the instability of labor force occupations. Under this context, domestic research on job stability has been conducted. Meng Fanqiang and Wu Jiang (2013), have selected job tenure as a measure of job stability and used the multiplier limit method to conduct estimation, verifying that job stability in China shows a decreasing trend as the labor force market reform progresses; Luo Chuliang (2008) has divided urban workers into stable and non-stable employment groups according to the duration of labor contracts, and found that the proportion of non-stable employment group has remarkably increased, for the meantime, the wage income gap between the above two groups has been widened.

The total number of migrant workers in China has reached 292 million in 2021. As a huge mobile population group in China, recent years, the job stability of migrant workers has become a key concern for domestic scholars. Stable employment, on the one hand, is conducive to improving the income of migrant workers and rural families, as well as enhance the willingness of employers to pay social insurance. (Guo Fei & Zhang Zhanxin, 2013), which then could help migrant workers to enhance their urban settlement ability and social identities, and help them to accelerate the transformation to citizenship (Yang Heqing & Xiao Hongmei, 2014). On the other hand, it can also accelerate the urbanization, achieve economic development and social stability.

Bai Nansheng and Li Jing (2008) have used an adaptive second-order sampling, to deeply analyze the job mobility and its reasons, and have found that income is the most important factor affecting the job stability of migrant workers; Zhou Chuang (2020) have used the standard whether employers provide contracts of more than one year as an indicator to classify job stability, and focused on the analysis of household differences in job stability, then concluded that difference in education level makes migrant workers' job stability significantly lower than that of urban workers; He Yun and Zhang Jiajia (2021) have reflected job stability through job mobility index, and have analyzed that the influence of family factors on female migrant workers increases their employment instability; Yu Chi and Shi Zhilai (2011) have analyzed the influence mechanism of human, social capital and family endowment variables on rural women's job mobility, then concluded that human capital factors for oneself are important in influencing the reciprocal mobility decisions; Liu Bin and Zhang Xiang (2021) have selected current job duration to measure job stability, then concluded that housing ownership on the job stability of middle-aged and older generation migrant workers is more significant.

Viewing from existing studies, scholars have conducted extensive research on job stability, especially in recent years, and the studies have focused on the job stability of the rural population; they mostly focused on the factors influencing job stability and the analysis of specific groups, but very little paper has explored the potential impact of job stability on workers' employment choices. This paper would explore the role of job stability on workers' non-farm employment on the basis of previous studies. And therefore, this paper could make the following contributions: First, it systematically explores the relationship between job stability and workers' non-farm employment participation from both theoretical and empirical perspectives; second, it takes into account urban-rural differences and skill level factors, to investigate the impact of job stability on non-farm employment participation of different labor force groups.

2. Model Settings and Variable Descriptions

2.1 Data Sources

Based on this study's topic, the data used in this paper mainly include the China Family Panel Studies (CFPS) data in 2018 at the micro level and the regional economy data at the macro level. The CFPS data are compiled and released by the China Social Science Survey Center of Peking University, including adult questionnaires, family questionnaires, and child questionnaires, covering information at the individual and family level in terms of employment, incomes, health, social interactions, household assets and liabilities, in which the data of regional economic development levels come from official statistical yearbooks, including the China Statistical Yearbook and the statistical yearbooks of each province (autonomous region and municipality).

2.2 Model Settings

$$(1) Y_i = \beta_1 Q_i + \beta_2 X_i + \beta_0 + u_i$$

This paper constructs an empirical model of the relationship between job stability and non-farm employment. Y_i represents whether individual i is engaged in non-farm work, and represents the job stability index of individual i . X_i are a series of control variables to control the effects of individual, household, and regional characteristics on the explanatory variables. u_i is a random disturbance term.

2.3 Variable Descriptions

2.3.1 Explanatory Variables: Job Stability

This paper takes the choice of dimensions for measuring employment quality from Leschke and Watt (2014), Deng Rui (2020), Qi Le and Tao Jianping (2022)'s to construct an indicator system for job stability with four dimensions: labor remuneration, work intensity, job stability, and social security. The four sub-indicators are measured as follows: 1) remuneration, measured monthly

average real after-tax wages; 2)work intensity, measured by the average number of hours worked per week; 3)job stability, measured by whether an employment contract is signed; 4)social security, measured by whether one could enjoy pension insurance or medical insurance. This paper firstly standardizes the sub-indicators to obtain the total index of individual job stability, and the standardized formula is as follows.

$$X_{ij}^{nor} = \frac{X_{ij} - \min_j}{\max_j - \min_j}$$

In the above equation, i represents the individual and j represents the four sub-indicators of job stability. It could be noted that work intensity among the four sub-indicators of is negatively correlated with the job stability of labor force. Hence, this paper uses difference value that 1 minus the standardized processed work intensity to obtain the inverse indicator of work intensity. Finally, the equal-weighted average method is used to determine the weights of each sub-indicator, and the calculation method is shown as below. In the equation, Q_i is the total index of job stability and X_{ij}^{nor} is the sub-index of job stability after standardization treatment.

2.3.2 Explained Variables: Non-farm Employment

The job type variable in the CFPS adult questionnaire can be used to construct the core explained variables in this paper, i.e., it is recorded as 1 if the individual works in non-agriculture jobs and 0 if the individual works in agriculture. Non-agricultural jobs include jobs in secondary industries such as manufacturing and construction, and jobs in tertiary industries such as finance, transportation, storage and postal services, while agricultural jobs refer to jobs in farming, forestry, husbandry and fishery.

2.4 Control Variables

Table 1. Descriptive Statistics

Type	Variable Name	Variable Definition	Sample	Mean	Standard Deviation
Explained Variable	Non-farm Employment Participation	Yes=1, No=0	2088	0.718	0.450
Explanatory Variable	Job Stability	Value Taken from 0~100, and the Higher the Score, the Better the Quality of Employment.	2088	34.727	20.926
Individual Control Variable	Age	Year of Survey- Year of Birth	2088	38.131	10.939
	Gender	Male=1, Female=0	2088	0.553	0.497
	Marital Status	Married=1, Unmarried=0	2088	0.779	0.415
	Education Level	Primary School and below=1, Junior Middle School, Senior High School, Technical Secondary School =2, Junior College and Above =3	2088	1.637	0.712
Household Control Variable	Household Total Income	Logarithm of Household Total Income	2088	10.751	1.238
	Household Debt Situation	Whether the Household is in Debt(Yes=1, No=0)	2088	0.116	0.320
	Household Support Burden	Whether There Exists Juvenile to Support in a Household(Yes=1, No=0)	2088	0.417	0.493
Regional Control Variable	Regional Economic Development Level	Logarithm of Per Capita Gross Regional Product in each Province	2088	10.951	0.397

The control variables in this paper mainly include individual, household, and regional characteristic variables. The individual characteristics are mainly demographic related variables such as age, gender, marital status, and education level. Since this paper mainly analyzes the labor market situation, the study only uses the sample with ages ranging from 16 to 60 years old. Household characteristics include total household income, household debt situation and household support burden. Regional characteristics are mainly variables reflecting the level of regional economic development, i.e., per capita gross regional product of each province (taken as logarithm).

Descriptive statistics of the variables are shown in Table 1. It can be seen that about 71.8% of individuals are engaged in non-farm work, which is generally comparable to the level of urbanization in China.

3. Empirical Study

3.1 Baseline Model Estimates

Based on the setting of the baseline model (1), the corresponding results are reported in Table 2. Columns (1) to (3) add individual, household, and regional control variables in the following order, and the regression results remain largely unchanged. The results of the benchmark regressions in Table 2 show that there is a positive relationship between job stability and non-farm employment, and the regression coefficients are all significant at the 1% level, which indicates that by increasing remuneration, work efficiency can be improved, and thus, reducing work intensity; meanwhile, job stability and social security can be enhanced by signing labor contracts and increasing social insurance, which is conducive to promoting non-farm employment.

In terms of control variables, education level is significantly and positively related to non-farm employment participation, and the regression coefficient is significant at the 1% level. The education level differences could make labor force obtain heterogeneous skills, which results in significant differences in individual productive capacity, and such differences also cause the different evaluations of job stability, therefore, profoundly affecting the employment choices of workers. The level of regional economic development is significantly and positively correlated with non-farm employment participation, and the regression coefficient is significant at the 1% level, which indicates that regions with higher levels of economic development contribute more to the promotion of non-farm employment.

Table 2. Benchmark Regression Results

Type	Variable Name	(1)	(2)	(3)
Core Variable Explanation	Job Stability	0.002***	0.002***	0.002***
		(<0.001)	(<0.001)	(<0.001)
Individual Control Variable	Age	-0.001*	-0.001	-0.001
		(0.001)	(0.001)	(0.001)
	Gender	-0.043***	-0.040***	-0.036**
		(0.017)	(0.017)	(0.017)
	Marital Status	-0.089***	-0.098***	-0.094***
		(0.022)	(0.286)	(0.028)
Household Control Variable	Education Level	0.083***	0.074***	0.072***
		(0.017)	(0.017)	(0.017)
	Household Total Income		0.039***	0.029***
			(0.010)	(0.010)
	Household Debt Situation		0.032	0.040
			(0.027)	(0.027)
Regional Control Variable	Household Support Burden		-0.001	0.002
			(0.023)	(0.023)
	Regional Economic Development Level			0.116***
				(0.022)
	Constant	0.667***	0.278***	-0.864***
		(0.063)	(0.118)	(0.248)
	Observations	2088	2088	2088
	R-squared	0.110	0.736	0.797

Note: Robust standard errors are in the parentheses, and*, **, *** represent that it is significant at the 10%, 5% and 1% level, respectively.

3.2 Robustness Testing

3.2.1. Substitution Variable Test

Job stability has different measures. This paper measure the job stability index by adding employment welfare indicators for robustness testing. The empirical results are shown in Table 3, and it can be found that the effect of job stability on non-farm employment is 0.2%, which indicates that the findings of this paper are robust.

Table 3. Robustness Testing: Substitution of Core Explanatory Variables

Variable Type	Variable Name	(1)
Core Explanatory Variable	Job Stability	0.002*** (<0.001)
	Age	-0.002 (0.001)
	Gender	-0.036** (0.017)
Individual Control Variable	Marital Status	-0.092*** (0.028)
	Education Level	0.076*** (0.017)
	Household Total Income	0.028*** (0.010)
	Household Debt Situation	0.042 (0.027)
Household Control Variable	Household Support Burden	<0.000 (0.023)
	Regional Economic Development Level	0.118*** (0.022)
Regional Control Variable	Constant	-0.886*** (0.248)
	Observations	2086
	R-squared	0.125

3.2.2 Endogeneity Test

Table 4. Endogeneity Test: Two Stages by Least Squares Method

Variable Name	(1)	(2)
Job Stability	0.126** (0.058)	0.079** (0.039)
Government Subsidy	-1.743** (0.847)	
Individual Control Variable	Control	Control
Household Control Variable	Control	Control
Regional Control Variable	Control	Control
Sample Size	2088	2088
R-squared	0.287	.

There may be a bi-directional causal relationship between job stability and non-farm employment participation, i.e., job stability promotes non-farm employment, which in turn affects job stability, and this reciprocal reverse causality can lead to endogeneity problems. For this reason, this paper adopts government subsidies as an instrumental variable of job stability. This is because to a certain extent job stability depends on life stability, and government subsidies affect individuals' survival and quality of life through financial or in-kind means, thus influencing whether individuals can have stable employment, which satisfies the endogeneity of the instrumental variable. On the other hand, whether one could gain the government subsidies exert little influence on whether he would join the non-farm employment, which satisfies the exogeneity of the instrumental variable. The empirical results in this paper based on the two-stage instrumental variables estimation method are shown in Table 4. Column (1) of Table 4 reports the regression results of the first stage, and it can be found that the estimated coefficient of government subsidy in the first stage is significant at the 5% level, indicating that the instrumental variable has a significant negative relationship with the endogenous

variable. Column (2) of Table 4 reports the regression results of the second stage estimated using the instrumental variables. Viewing from the estimation results, job stability still has a positive contribution to non-farm employment participation after addressing endogeneity, and the regression coefficient is significant at the 5% level, which is consistent with the sign of the benchmark regression and confirms the robustness of the estimation results.

3.3 Further Explorations and Discussions Based on Urban-rural Gap and Labor Force Skill Level

3.3.1 Estimates for Urban and Rural Sub-groups

First, the study explores the urban-rural heterogeneity of job stability for non-farm employment. For better research analysis, the total index of job stability is divided by 100 here in this paper. Table 5 reports the sub-sample regression results. It can be seen the contribution of job stability to non-farm employment participation is more prevalent among the rural household population. With the improvement of rural living standards, the rural population begins to pursue more security and stability when making non-farm employment choices. Meanwhile, with the continuous promotion of new urbanization, rural laborers enter the cities, therefore, job stability is the basis for their life and development in the cities, which affects whether they can integrate well into the cities. And under the influence of urban lifestyle and modern social rules, urban workers are more brave to take risks and more active in thinking, which determines that they may switch jobs frequently.

Table 5. Results of Estimates for Urban and Rural Sub-groups

Variable Name	(1)Rural Registration Sample	(2)Urban Registration Sample
Job Stability	0.220*** (0.091)	0.201*** (0.502)
Age	-0.006*** (0.002)	<-0.000 (0.001)
Gender	0.017 (0.031)	-0.051*** (0.019)
Marital Status	-0.092* (0.051)	-0.081*** (0.092)
Education Level	0.091*** (0.032)	0.095** (0.018)
Household Total Income	0.028* (0.016)	0.064 (0.012)
Household Debt Situation	0.085* (0.047)	0.020 (0.031)
Household Support Burden	-0.066 (0.042)	0.034 (0.026)
Regional Economic Development Level	0.081** (0.042)	0.103*** (0.024)
Constant Term	-0.418 (0.475)	-0.416 (0.283)
Sample Size	861	1189
R-squared	0.135	0.094

3.3.2 Estimates for Skill Difference by Group of Workers

The paper further explores the skill heterogeneity of job stability contributing to labor force non-farm employment participation. It is worth noting that since this paper here focuses on a rural labor force sample with a relatively low level of education, the sample size with education levels at university and above is very small. For this reason, this paper draws on Sun Wenyan and Zhou Han (2020), Si Xiaofei and Li Maishou (2022) to define the rural labor force with at least junior college education and above as the high-skilled labor force, the labor force with education levels at junior middle school and above, but below junior college as the medium-skilled labor force, then the labor force with education levels below junior middle school as the low-skilled labor force. Table 6 reports the sub-sample estimation results. Clearly, job stability promotes non-farm employment of rural labor, mainly in the low-skilled labor group. The constraint of employment skills can make low-skilled labor less risk-resistant, face fewer employment opportunities; and survival-oriented employment motives

make factors such as remuneration and social insurance exert significant impact on whether they choose non-farm employment.

High-skilled labor force is more capable of learning and accepting the new, which makes it easier for them to grasp job opportunities. For the current period of economic transition, high-skilled labor forces are also more willing to participate in innovation and entrepreneurship, new industries and new business forms, while their higher education level also determines that they may have more opportunities to switch jobs. Therefore, compared with career stability, employment quality and employment prospect have greater impacts on whether they choose non-farm employment.

Table 6. Results of Estimates for Education level

Variable Name	(1) Low-skilled Labor Force	(2) Medium-skilled Labor Force	(3) High-skilled Labor Force
Job Stability	0.003*** (0.001)	0.002*** (0.001)	0.001** (<0.000)
Age	-0.002 (0.002)	<-0.000 (0.002)	-0.001 (0.002)
Gender	0.039 (0.033)	-0.042* (0.027)	-0.034** (0.017)
Marital Status	-0.174*** (0.055)	-0.089* (0.048)	-0.026 (0.031)
Household Total Income	0.064*** (0.024)	0.026* (0.014)	0.006 (0.009)
Household Debt Situation	0.016 (0.057)	0.084** (0.040)	0.019 (0.025)
Household Support Burden	0.010 (0.045)	-0.059* (0.041)	0.021 (0.030)
Regional Economic Development Level	0.216*** (0.046)	0.098*** (0.034)	0.019 (0.020)
Constant Term	-2.208*** (0.515)	-0.498* (0.384)	0.692*** (0.215)
Sample Size	764	895	429
R-squared	0.092	0.062	0.031

4. Conclusions

Employment is essential to people's livelihood. Against the complex and severe international environment and the pandemic, the issue of "stabilizing employment" has received widespread attention. Based on this, this paper explores the impact of job stability on workers' non-farm employment participation and draws the following conclusions with the data of the 2018 China Family Panel Studies: Firstly, job stability is a core factor of workers' non-farm employment participation; secondly, based on the heterogeneous analysis of urban and rural household registration, the paper finds that although job stability can affect the employment intentions of both rural and urban labor groups, it could exert more beneficial effects on the non-farm employment of rural workers than urban workers; meanwhile, by comparing the labor force at different skill levels, the study shows that a stable job could exert more influences on the employment participation of the low-skilled labor force than the medium-skilled labor force, while it has the least impact on the high-skilled labor force.

The findings of this paper not only have practical implications for promoting labor participation in employment and improving employment quality, but also have certain policy implications for China's employment security system. To improve employment participation, the government is expected to improve the social security system, so as to solve the basic problems in employment, housing and insurance for labor force; at the same time, in terms of policies and regulations, it is expected to strengthen the protection of the legal rights and benefits of rural workers, so as to enhance their job stability; finally, the government is supposed to increase public investment, especially the financial investment in vocational education and skill training, so that workers could improve their vocational skills and increase their employment opportunities.

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