The Impact of Nearby Employment on the Well-being of Rural Residents

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Abstract. At the present stage, with the change of the international situation and the domestic economic situation, the direction of China's rural labor force flow is changing, and the phenomenon of labor force employment in the county area is gradually increasing. A Ordered Logistic measurement model was constructed to empirically analyze the effect of rural residents' nearby employment on happiness. It is found that in general, the nearby employment of rural labor force can improve the happiness of rural residents, but the nearby employment in economically underdeveloped county areas reduces the happiness of rural residents; secondly, the nearby employment of women can significantly enhance the happiness of women in different economic development conditions. Based on the empirical analysis results, the corresponding policy suggestions are put forward to promote rural development and improve the happiness of rural residents.

Keywords: nearby employment; Ordered Logistic model; rural residents' happiness

1. Introduction

With the changes of the international economic situation, the transformation of China's economic development and China's high attention and strong support for rural revitalization, the current flow of China's labor force is changing. In recent years, migrant workers have obviously returned to their hometowns, and the number of jobs in counties has increased. The National Bureau of Statistics released a 2020 monitoring survey of migrant workers, 2016-2019 migrant workers (household registration is still in rural areas, years in the local non-agricultural industry or out for 6 months or more workers) the total amount is increasing, but the annual growth is declining, at the same time in 2020 migrant workers show the trend of rapid reduction [1]. Among them, the rural migrant workers were 285.6 million in 2020, down 5.17 million from 2019.In addition, the number of rural migrant workers going out was 4.66 million less than the previous year. The reduction of the number of migrant workers, the return of migrant workers and the increase of the number of employment in the county level cause the research question of this paper. What is the impact of the nearby employment in the county level on the happiness of rural.

The flow of China's labor force in China began in the early days of reform and opening up, and large-scale labor force shifted from rural areas to eastern coastal areas. Since then, labor force has been flowing to the central and eastern regions. In 2020, China's labor force is still shifting to urban areas, but the transfer speed of labor began to slow down. Especially in

PMIS 2024, March 15-17, Changsha, People's Republic of China

DOI 10.4108/eai.15-3-2024.2346386

recent years, the growth rate of labor force transfer to big cities is showing a rapid downward trend. The research related to the Chinese labor force mainly involves the change of labor force quantity, the transfer of labor force and the employment situation of labor force [2][3][4]. This study is related to labor transfer and employment situation, the current research is mainly composed of two angles are the study of rural labor outward migration and labor back-flow related research [5][6] (Li , Hu , Ji et al, 2021) (Huang, Ding et al 2022) (Fan , 2021) (Li , Ji, Chen, 2022) (Huang, Song et al, 2022).

Based on the macro factors, the flow of labor force between the agricultural sector and the non-agricultural sector are discussed (CAI, 2004,2010) (Yan, Guo , Hang, 2022) [7][8][9] .And from the perspective of labor force back-flow, the influencing factors that attract and restrict labor force back-flow and the role of rural labor force back-flow on rural development are [5][6][10] are discussed.

Residents' happiness has always been a key livelihood issue of national concern. Rural residents, as a large group in China, must not be ignored. Related to the happiness of Chinese rural residents, focusing on the impact of rural public services and infrastructure on the happiness of rural residents 'happiness (Zhang , Xu , 2020) (Xu, Fu , 2018) [11][12]; farmers' income and non-agricultural employment (Sun , Sun , 2022) (Yang , Sun et al., 2019) [13][14].

Through the above analysis, it is found that the existing studies have some limitations. Research on the employment and happiness of rural labor force are mostly analyzed from the perspective of non-agricultural employment and the outflow of rural labor force, and the research on the nearby employment of labor force is mostly related to whether the choice of labor force outflow. Few studies have discussed the relationship between rural labor force employment and its happiness. This paper demonstrates the impact effect of rural labor force nearby employment on its happiness through theoretical analysis, and demonstrates it through empirical research.

2 Theoretical analysis and model assumptions

Utility maximization theory points out that the rational economy is motivated to seek to maximize personal utility, and that the most direct expression of utility is the difference between benefit and cost. Rural residents choose to work in the county than in the places, and although the income is low, they can take care of the family, care for the elderly and children, in addition, going out to take a greater risk. According to prospect theory, a person's world view is limited by the information obtained, making decisions are not always consistent or logical, and everyone defines their own benefits and costs differently, so some people will choose to work outside, some people will choose to stay in the countryside or even return to the countryside. Therefore, this paper believes that the rural residents who choose to work nearby in the county are based on a variety of considerations, which is a better choice than him.

Therefore, Hypothesis 1: the nearby employment of rural labor force can improve the happiness of rural residents.

Studies have pointed out that (Sun, Sun, 2022), non-agricultural employment positive impact on happiness in rural residents of 40 and under is more significant, and the younger the age,

non-agricultural employment promoting effect on happiness is stronger, and in 41-50,60 and older rural residents, non-agricultural employment on its happiness did not show a significant [13].This is because non-agricultural employment provides more career development opportunities for the new generation of migrant workers, while the first generation of migrant workers are more likely to go out to work under the pressure of survival, but the hard work brought by non-agricultural employment is not conducive to the improvement of their happiness. This paper believes that the choice of employment in the county level is because the county can provide the corresponding jobs, and is a non-farm employment. Because, most people leave the countryside and do not want to engage in agricultural activities, and choose to work in the rural areas because the local area can provide the corresponding non-agricultural jobs.

Based on the above analysis, Hypothesis 2: the older the rural residents employed in the county are, the lower the happiness they feel.

3 Model construction, data source, and variable selection

3.1 Building Model

This paper builds a measurement model to empirically analyze the impact of nearby employment on happiness, and tests the hypotheses mentioned above. As the well-being of rural residents is an orderly and multi-classified discrete variable, and combined with the current empirical research related to well-being, the Ordered Logistic measurement model is selected for analysis. The basic regression model is constructed as follows:

$$\text{Happiness}_i = \alpha + \beta \text{Labor\_Mobility}_i + \gamma X_i + \delta_i$$

Happiness_i is the explained variable, indicating the happiness of the i; Labor_Mobility_i represents the core explained variable, reflecting the nearby employment of the farmers, X_i includes individual characteristic variables, family characteristics variables and subjective attitude variables; β is the influence coefficient of rural residents 'employment in counties; γ is the influence coefficient of control variables on rural residents' happiness; α and δ_i are intercept items and random error items respectively.

3.2 Sample data source and description

The data adopted in this paper are the actual micro survey of the household level in Shandong Province in 2019, including 32 villages in the two regions, with a total sample size of 906 households. The data selected in this paper involve the relevant data from 2018 collected by this survey. Excluding the missing values of the selected variables in this study, 628 valid samples were obtained, and 921 valid samples were screened out of the non-labor population.

3.3 Variable selection and descriptive statistics

1. Interpreted variable. The explained variable in this study is the degree of happiness of rural individuals. Using the Likert five-level scale method, we divided the evaluation of happiness into five levels: "1= very unhappy, 2= not too happy, 3= general, 4= relatively happy, 5= very happy". Therefore, the assessment of rural residents' evaluation of current life well-being in the questionnaire was selected as a proxy variable for the degree of well-being in this study.

2. Core explanatory variables. Nearby employment of farmers is the core explanatory variable of this paper. Select the proxy variable of whether employment in the county as the core explanatory variable. The questions in the questionnaire involving the employment place include the time of local agricultural labor, local non-agricultural labor time, labor time within the township, labor time outside the county, labor time outside the county, and labor time outside the province. Individuals who do not work at zero within and outside the province will be identified as employed outside the county, otherwise they are employed within the county. And assign a value, 1= employment within the county, 0= employment outside the county. After screening the sample, it was found that individuals working outside the county would not work in the county within one year, and that individuals who were also employed in the county did not work outside the county at the same time. The local agricultural labor time, local non-agricultural labor time, the township labor time, the county outside the township labor time for rural residents in 2018 individual county employment time, and calculated the county working time throughout the year, therefore, choose the county employment time as the core explanatory variable, the variable can better quantitative in the county employment on rural residents' happiness. At the same time, the proportion of working time in the county working time is taken as its supplementary variable.

3. Control variables. In order to more accurately explore the relationship between farmers' employment nearby and the well-being of rural residents, this paper borrowed the relevant studies of Xu Haiping and Fan Nana [15], and introduced the individual characteristic variables, family characteristic variables and subjective attitude variables of rural residents as control variables. These include, the individual's gender, age, age square item, educational level, marital status, health status, political participation, housing situation, future life confidence, and total family income of [11].

Descriptive statistical results for all of the above variables are detailed in Table 1.

Table 1. Description of the model variables

Type of variable	Variable name	Descriptions	AVe-rage value	Stan-dard deviation
Explained variables	Happiness	"Overall, how happy is life right now?" 1=very unhappy, 2=not very happy, 3=average, 4=more happy, 5=very happy	4.2	0.737
Explaining variables	Time spent in employment within the county	Day-based	274.14	139.231
	Time spent in employment in the county as a proportion of the year	Hours of employment in the county/365	0.751	0.381
Control variables	Genders	1 = female, 0 = male	0.41	0.512
	Age	Actual value of respondent's age in "years"	50.02	11.064
	Square term for age	Quadratic of respondent's actual age	2624.67	1101.883

Education	1 = illiterate, 2 = primary school, 3 = lower secondary school, 4 = upper secondary school or secondary school (vocational high school and technical school), 5 = college and above	3.09	0.956
Marriage status	1 = with spouse, 0 = without spouse	0.97	0.511
Health status	1=disabled, 2=having a major illness, 3=long-term chronic illness, 4=healthy	3.85	0.411
Housing situation	"Source of housing" 1 = owned, 0 = not owned	0.99	0.087
Net household income	Respondents' actual household income-expenditure in the past year	66733.501	9947 8.868
ln(Net household income)	ln(Net household income)	9.93	2.904
Life confidence	“ How do you think your family's life will be in 5 years?" 1=much worse, 2=worse, 3=not easy to say, 4=about the same, 5=better, 6=much better	5.01	1.087

4 Positive results and analysis

4.1 Benchmark regression results and analysis

This paper uses the Ordered Logistic measurement model to conduct benchmark regression to reflect the relationship between farmers' nearby employment and the happiness of rural residents. The regression results are presented in Table 2.

As can be seen in Table 2 in columns (1) and (3), the coefficients were significantly positively correlated at the 10% level in the regression, indicating that employment in the county can enhance the well-being of rural residents. Hypothesis 1 was tested. Table 2, columns (2) and (4), shows that the effect of employment time and the proportion of employment time in the county on the happiness of rural residents was after adding the control variable, respectively, and it was found that the coefficient was significantly positive at 10% and greater than column (1) and (3).From the control variables, the coefficient of sex was significant at the 5% level, with a value of 0.288, indicating that employment in the county level can improve the well-being of female rural residents. Control variables such as age and marital status were not significant and were mainly questions of sample selection. Due to the survey conducted in rural areas, most of the sample individuals are older and already married, so they can not accurately reflect the reality. Although age was not significant, the coefficients were positive and negative, respectively. This shows that in rural areas, presents the relationship of inverted U type between age and happiness, young people have greater ambition, more yearning for life in big cities, the elderly on the one hand in rural left-behind state, lack of family company, on the other hand, the countryside for the elderly various social security strength is not large enough range is not wide enough. Reproves the view of Hypothesis 2.The coefficient of literacy was significantly positive, indicating that more educated people were happier. In addition, family income, confidence in future life, and health status have a significant positive impact on well-being.

Table 2 Benchmark regression of the effect of proximity to employment on the well-being of rural residents

Variant	Ordered Logistic			
	(1)	(2)	(3)	(4)
Time spent in employment within the county	0.00066*	0.0007*		
	(0.00051)	(0.00054)		
Time spent in employment in the county as a proportion of the year			0.189*	0.192*
			(0.187)	(0.197)
Whether female		0.288**		0.288**
		(0.129)		(0.129)
Age		0.023		0.023
		(0.042)		(0.042)
Square term of age		-0.001		-0.001
		(0.0004)		(0.0004)
Educational		0.132*		0.132*
		(0.076)		(0.076)
Marriage status		-0.041		-0.041
		(0.114)		(0.114)
Health status		0.279*		0.279*
		(0.166)		(0.166)
Housing situation		0.916*		0.916*
		(0.72)		(0.72)
Net household income		0.000		0.000
		(0)		(0)
ln(Net household income)		0.068***		0.068***
		(0.024)		(0.024)
Life confidence		0.448***		0.448***
		(0.063)		(0.063)
Number of observations	921	921	921	921

Standard errors in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

5 Conclusion

Based on the above research and analysis, the following conclusions are obtained: (1) through the benchmark regression analysis, the nearby employment of rural labor force can improve

the happiness of rural residents. However, further distinguishing the economic development status between regions shows that the nearby employment of rural labor force to improve the happiness of rural residents is to rely on the non-agricultural employment opportunities brought by the non-agricultural economic development in counties to enhance the happiness of residents. That is, in the county economically developed areas, there are more non-agricultural employment opportunities, which increase the income source of the rural residents, and can take into account their families, and maintain close relations with their families, so the rural residents working in the county can enhance their happiness. (2) In the analysis of individual characteristics, it can be found that women's happiness in county employment is higher than that of men, especially in economically developed counties, where women want to find jobs nearby.

6 Policy recommendations

Rural areas should vigorously develop the county economy, so as to provide more jobs and increase the income channels of rural residents[16].To promote the integrated development of secondary and tertiary industries in rural areas, industrial parks in rural areas with more developed industries can be established to introduce more similar manufacturing enterprises to the local area, and finally form a local characteristic industry with less accumulation and more accumulation. The development of county economy can enhance the happiness of local residents.

Establish a local skills learning platform to provide opportunities for the local labor force to improve their skills, so as not to be eliminated by the local development[17].Some local vocational skills training bases can be set up, inviting relevant professionals to train the local labor force in relevant skills, such as housekeeping, e-commerce, and the skills needed by related industries. Rural residents 'learning enthusiasm may not be high, can through some preferential or incentives to stimulate rural residents' learning enthusiasm, for example, namely by driving the prescribed number of people to learn can be exempted from tuition fees, or by providing directional employment to drive learning, the commitment to training base learning after reaching certain standards, will arrange to enter the relevant jobs. In the empirical analysis results of this paper, it is found that, especially in the rural areas with economically backward counties, improving the knowledge and skills level of residents can enhance their happiness.

Accelerate the process of urban-rural integration, improve the rural social security system, improve the level of rural public services, and strengthen the rural infrastructure construction. If the social security system in rural areas is perfect enough, then the sense of insecurity brought by economic development to the elderly will be reduced, and the happiness of residents in the areas where agriculture and industry integrate the development will not decrease with the growth of age.

Finally, the rural development model can not be one size fits all, but should be adapted to the time and local conditions. Some places may be in the humanistic care for the elderly, meet the reluctance to give up their land or homestead because of their nostalgia for their hometown, and delay the local development. Some problems and difficulties may only be solved by time.

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