

The Impact of Industrial Structure Upgrading on Employment Differences in Disabled Persons--Based on Empirical Tests of 31 Provinces and Cities

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Abstract: in Recent Years, with the Continuous Upgrading of the Industrial Structure, the Relationship between Industrial Structure, Employment Development Level and Employment Structure Has Received Much Attention. the Upgrading of Industrial Structure Has Created More Labor Positions and Provided Abundant Material Information for Workers. However, with the Rapid Development of the Economy, the Employment Situation of the Disabled is Not Optimistic, the Employment Pressure is Growing, and the Employment Problem is Increasingly Prominent. Therefore, This Paper Empirically Analyzes the Impact of Industrial Structure Upgrading on the Employment of Disabled People. the Study Finds That the Upgrading of Industrial Structure Has a Significant Impact on the Employment of Disabled People.

1. Introduction

1.1 Literature Review

At present, the industrial structure has a great impact on employment in the academic community. Based on the panel data from 2000 to 2014, Du Chuanzhong and other scholars studied the relationship between technological progress, industrial structure upgrading and employment. The results show that the upgrading of industrial structure has a significant role in promoting employment, and the impact of industrial structure upgrading on employment in different regions is obvious. difference. Therefore, in the context of the technological revolution, measures should be taken to promote economic transformation and promote employment (Du and Xu, 2017). Using the panel data of 14 prefecture-level cities in Liaoning Province from 2000 to 2015, Stan et al. found that the relationship between industrial structure upgrading and employment has a significant relationship, but the industrial structure can balance economic fluctuations, while employment has no significant impact on economic growth. (Shi and Wu, 2017). Tang Rui and others used the relevant data of Zhejiang Province from 2000 to 2014 to study the relationship between industrial structure and employment growth, and found that the industrial structure has a close relationship with the employment growth period. The pace of industrial structure upgrading provides a “job reservoir” for employment. (Tang and Feng, 2017). Guo et al pointed out that the industrial structure is the key to promoting economic growth in a country or region. Therefore, the data of Jiangsu Province was selected for analysis, and the industrial structure was upgraded to increase the employment of the secondary and tertiary industries, but the employment of the primary industry declined. Therefore, the upgrading of the industrial structure will inhibit the growth of employment to some extent (Guo and Li, 2017).

1.2 Research Purposes

Economic growth and rising employment rates have always been the direction of long-term efforts of government departments. Promoting long-term economic growth is the task of the chief of the country. The upgrading of industrial structure is one of the main ways to promote the healthy development of the economy, so the upgrading of industrial structure has an impact on all aspects of social production and life (He, 2018). Among them, the upgrading of industrial structure has a greater impact on employment. In this context, based on panel data of 31 provinces and cities, this paper studies the impact of industrial structure upgrading on the employment of disabled people. On

the one hand, it is conducive to enriching the employment theory of disabled people in China, on the other hand, it is beneficial to guide disabled people to better employment, improve the employment status of disabled people, and increase the employment rate of disabled people.

2. Model Construction and Variable Description

2.1 Model Building

There are three main levels of industrial structure upgrading, including industrial restructuring, value-added production, and industrial value chain transformation. Industrial value-added is the basic form of structural upgrading. Therefore, this paper mainly studies the impact of industrial value-added employment differences in disabled areas, and uses panel data from 31 provinces and cities in 2008-2017 for analysis. Among them, the employment elasticity of disabled persons mainly refers to the change in the employment volume of disabled persons with the change of economic aggregate. When the employment elasticity of disabled people is greater than 0, it indicates that economic growth can drive the employment of disabled people. When the employment elasticity of disabled persons is less than 0, it indicates that economic growth has a two-way effect on the employment impact of disabled people (Chang and Cui, 2017). When the employment elasticity of disabled persons is negative and economic growth is positive, the greater the absolute value of employment elasticity, the greater the inhibition of employment on employment. When economic growth is positive for negative employment growth, the greater the absolute value of employment elasticity, the greater the effect of economic growth on employment of disabled people. In summary, this paper selects the employment elasticity of disabled persons and industrial value-added, and analyzes the impact of industrial structure on employment differences in disabled areas.

At present, there are two main methods for calculating the employment elasticity of disabled people: definition method and model construction. Among them, the elastic definition method is greatly affected by time. Between different, elastic fluctuations are also large, so it is difficult to reflect the impact of industrial structure on employment. Thus, the panel data is used to calculate the elasticity and avoid the influence of time on the elasticity. Based on the above analysis, the following model was constructed for empirical analysis:

$$Y = AK^{\alpha}L^{\beta} \quad (1)$$

Among them, Y represents actual economic output, A represents technological progress, L represents labor input, K represents capital investment, and α 、 β represents elasticity of capital and labor input. In order to reduce the fluctuation between data and the impact on the estimation results, the above model is logarithmically processed. The results are as follows:

$$\ln Y = \ln A + \alpha \ln K + \beta \ln L \quad (2)$$

In order to ensure the accuracy of the empirical results, the model (2) is simplified to obtain the employment elasticity model for the disabled:

$$\ln L_t = \alpha_0 + \alpha_0 \ln Y + \alpha_1 \ln A + \alpha_2 \ln r + \alpha_3 \ln w + \alpha_4 \ln L_{t-1} + \varepsilon_t$$

2.2 Variable Description

The employment review of disabled persons is used as a dependent variable, and the proportion of people who have obtained disability certificates among the employed persons in each province is calculated by multiplying the number of employed persons in each province. The data mainly comes from the 2008-2017 National Statistical Yearbook and the statistical yearbooks of various provinces and cities across the country. The specific settings of the variables are shown in Table 1.

Table 1 Variable Description

Variable type	Variable name	Symbol
Dependent variable	Logarithm of employment of disabled persons	$\ln L$
Independent variable	Regional GDP logarithm	$\ln Y$
Control variable	Wage level logarithm	$\ln W$
	Technical level logarithm	$\ln A$
	Log cost of capital	$\ln R$
	The first-order logarithm of the employment of disabled people	$\ln L_{t-1}$

3. Empirical Analysis

3.1 Descriptive Statistics

By studying the data, it can be seen that the proportion of secondary and tertiary industries in the central and western regions is lower than the national level. Furthermore, it shows that there is still room for improvement in the industrial structure of the central and western regions. Among them, the secondary industry in the central region accounts for the largest proportion, and the tertiary industry accounts for a relatively small proportion. The economic development of the central region mainly depends on the secondary industry, indicating that the industrial structure optimization space is large. At the same time, there is a huge room for change in the industrial structure of the western region. However, due to the relatively backward economic level in the western region, the industrial structure upgrade has a greater impact on the negative employment. Therefore, the adjustment of industrial structure in the western region has a negative impact on the employment impact of disabled people.

3.2 Empirical Analysis

On the basis of the data description, the panel data is selected to analyze the model. It is preferred to perform Hausman test on the model to determine whether to select the fixed effect model or the random effect model for analysis. According to the test results, it is more appropriate to use the fixed effect model for analysis. It can be seen from the time series unit and the test results that there are first-order sequences and heteroscedasticity problems in the regression equation, which may lead to inaccurate OLS results. Therefore, in order to eliminate the effects of heteroscedasticity and first-order sequences on the regression results, the eastern region, the western region, and the national region are carried out. The results are shown in Table 2.

Table 2 Regression Results

$\ln L$	Model 1	Model 2	Model 3
$P2$	21.667*** (3.247)	5.549*** (2.544)	0.937*** (0.348)
$P3$	29.334*** (2.534)	2.647*** (1.470)	1.256*** (0.497)
$\ln w$		2.147*** (0.257)	-0.147*** (0.059)
A		0.0003** (0.000)	0.019 (0.037)
$\ln L_{t-1}$			0.849*** (0.014)
$Work$		3.470 (2.669)	-1.009** (0.419)
Urb		0.497 (1.399)	0.359** (0.164)

Remarks: ***, **, * are indicated at 1%, 5%, and 10%, respectively, and the standard deviation is indicated in parentheses.

It can be seen from Table 2 that in the case where the model (1) does not include other control variables, the industrial structure upgrade has a significant improvement effect on the employment

of disabled persons. Among them, the change in industrial structure is mainly due to changes in the proportion of the secondary and tertiary industries in the national economy. Both the secondary and tertiary industries passed the 1% significant test, indicating that the upgrading of industrial structure has a significant effect on the employment of disabled persons, and the tertiary industry has a greater impact on the employment of disabled persons than the secondary industry. In model (2), the introduction of technological progress and wage levels, as well as urbanization levels and regions, found that the impact of industrial structure upgrading on the employment of disabled people has declined. Although the structural changes of the secondary and tertiary industries have an impact on the employment of disabled persons, the influence coefficient of the model (1) has decreased, which in turn indicates that the results obtained in the model (1) are inaccurate. On this basis, in order to analyze the impact of industrial upgrading on the employment of disabled people between different regions, further research is conducted in different regions. Studies have shown that the relevant indicators for the upgrading of the industrial structure in the central and western regions have passed the significant test. Among them, changes in the secondary and tertiary industries have a significant positive impact on the employment of disabled people. Moreover, consistent with the national level, the tertiary industry has a greater impact on the employment of disabled people than the secondary industry. In addition, through sub-regional analysis, the regression coefficient of the tertiary industry in the eastern region for the employment of disabled people is greater than that in the central and western regions, indicating that the industrial structure of the eastern region has been upgraded, and the employment of disabled persons has been greatly promoted. The western region mainly relies on the development of the secondary industry to promote the employment of disabled people. Due to the special nature of the disabled, the secondary industry has limitations on the employment of disabled people.

4. Conclusion and Suggestion

It can be seen from the empirical results that the current industrial structure upgrade has a significant pulling effect on the employment of disabled people, and the eastern region is significantly higher than the central and western regions. Therefore, it can be said that the upgrading of industrial structure has a significant impact on the employment of disabled people and has significant regional differences. Therefore, the following suggestions are proposed to promote the impact of industrial structure upgrading on the employment of disabled people.

First, accelerate industrial transformation and optimize industrial structure. In the national economy, the tertiary industry has a more significant effect on the employment of disabled people. Therefore, in order to further promote the employment of disabled people, we must first accelerate the transformation and upgrading of China's industries and change the traditional labor-intensive production mode. Specifically, it is possible to strengthen the skills training of laborers and cultivate more talents that can meet the needs of society. At the same time, it is also necessary to speed up the training of talented people, so that they can better adapt to the transformation and upgrading of industrial structure.

Second, promote the process of financial market construction and improve the RMB settlement system. When promoting industrial upgrading, we should give play to the positive role of the financial market and promote economic and social development. Among them, the financial system, as a part of capital allocation in economic development, plays an important role in economic development. Therefore, we must continue to enrich and improve financial products and provide strong support for economic development. At the same time, it is necessary to increase the amount of RMB settlement in the international market and enhance the status of the renminbi, so as to provide strong support for the Chinese economy in the folk market.

Third, cultivate the value chain and promote the value chain upgrade. As the industrial division of labor continues to deepen, China's original production methods can no longer meet the requirements of economic development. Therefore, relevant departments should give full play to the role of technological innovation in production, enhance the status of technological innovation in economic development, and gradually transform enterprises from the competitive advantage of

human resources to rely on science and technology to enhance competitiveness, and then promote the enterprise value chain.

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