Analysis of the Impact of Rural Education Level on New Urbanization in China

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Abstract. Since the reform and opening up 40 years ago, urban space has been expanding continuously, and the urbanization rate reached 56% in 2015. However, spatial urbanization has not brought about population urbanization. There are a large number of rural population in China. The problem of household registration prevents them from enjoying the fruits of urbanization. The new urbanization, namely the reform of household registration system, will devote itself to solving this problem. It can effectively promote the development of China's economy and society and release huge economic potential. According to the research of some scholars, the education level of rural population plays an important role in the process of urbanization of rural population. This paper uses the relevant data from 1985 to 2015 to make an empirical analysis of the relationship between the education level of rural population and the level of urbanization, which shows that the improvement of rural education level is very important for the new generation. Promotion of urbanization.

Introduction

The enlargement of the gap between urban and rural areas has always been a very important problem restricting the balanced development of China's economy. The formation of the "three rural" problem, in the final analysis, is also formed by the dual economic structure of urban and rural areas. The fundamental way to solve the problem of "agriculture, countryside and farmers" is to implement "industry feeds back agriculture, cities support rural areas", vigorously promote urbanization, promote the transfer of surplus rural labor to cities, accelerate the transformation of traditional agriculture to modern agriculture, gradually narrow the gap between urban and rural areas, and step out of the dual economic structure of urban and rural areas. In the process of urbanization, education, especially rural education, plays a very important role. The development of rural education can improve the cultural quality of rural residents, promote the transfer of rural labor force to cities and towns, and adapt to urban life as soon as possible, so as to promote the development of urbanization.

This paper uses the data of rural per capita education years and urbanization level from 1985 to 2015, focusing on the impact of rural education level on urbanization construction. This paper is divided into six parts: the first part is an introduction, which introduces the background, significance and structure of the paper; the second part is a literature review, which briefly introduces the relevant research results of scholars at home and abroad since modern times, and makes a simple summary; the third part introduces the development status of urbanization in China. And the current level of education in rural areas, and the correlation between urbanization and rural education level is analyzed. The fourth part is the empirical analysis of rural education level on urbanization level. Firstly, it introduces the model selection and data sources, then carries out unit root test and integration test on the variables of the model, finally obtains the error correction model and analyses the results of the model; the fifth part is the summary; the sixth part puts forward the relevant proposals. Policy recommendations.
Literature Review

In 1965, American economist Michelle Gieser studied the empirical data of the United States and found that every 10% increase in education level in rural areas would lead to 6% to 7% of the rural population moving out of agriculture to engage in non-agricultural production, and at the same time, the income of farmers would increase by 5%. Schultz's research also points out that "for well-educated workers, their migration behavior (for rural workers, migration means migration from rural areas to cities, that is, the process of urbanization) is better than the migration of uneducated workers because of education". Education improves the quality of workers, can enable workers to get more job opportunities, but also more effective job information search[1]. Duncan Black and Vernon Henderson (1999) pointed out that there is a positive interaction between urbanization process and workers' educational level. The level of urban human capital affects the production efficiency, urban income and economic growth of enterprises, and then the speed and level of urbanization[2].

Domestic researchers have also made some theoretical and empirical studies on the relationship between education and urbanization. The related research of Fang Cai and Xiaobo Qu (2010, 2012) shows that farmers' education level is positively related to migration. Rural labor force with high human capital endowment prefers to transfer to rural non-agricultural industries rather than to cities, because the transfer to cities will reduce their social status[3,4]. Yan Zhang (2005) made various econometric analyses in this respect at home and abroad: national cross-sectional data of 174 different stages of development in the world in 2002, provincial cross-sectional data of 1990 and 2000, and time series data of China from 1978 to 2002[5]. These data analysis results show that there is a strong correlation between education and urbanization level. The correlation coefficients are about 0.7. The paper also analyses the importance of rural education to the development of urbanization, and holds that "higher education is a prerequisite for rural population to go abroad". Gui'e Li (2005) believed that the general low quality of rural population restricted the rural labor force to enter the city, even if they entered the city (migrant workers), it was difficult to stay in the city, which greatly restricted the development of urbanization[6]. Shuiqing Gui (2004) also believed that it was necessary to improve farmers'human capital stock through education and give them the same initial conditions as urban citizens in order to realize the real transformation of farmers to citizens and improve the quality of urbanization[7]. From the review of previous studies, we can see that in the empirical analysis of education and urbanization, there are more analyses on education in general and the relationship between higher education and urbanization, but there is no data analysis on the relationship between rural education and urbanization. The purpose of this paper is to analyze the correlation between rural education level and urbanization rate.

The Level of Urbanization in China and the Present Situation of Per Capita Educational Years in Rural Areas

Current Situation of Urbanization in China. The core of China's new urbanization construction lies in the urbanization of registered population, but in the process of urbanization, we have not paid too much attention to the urbanization of registered population. In 2010, the urbanization rate of urban permanent population in China reached about 50%, but the urbanization rate of urban registered population was only 34%. There was a gap of 16 percentage points between them (Qu Xiaobo et al., 2013). At the end of 2017, the urbanization rate of urban permanent population was 58.5%, while the urbanization rate of registered population was only 42.4%. There is a gap of 16.1 percentage points. The gap between urbanization rate of household registration population and urbanization rate of resident population shows that in the process of urbanization, China pays too much attention to the "quantity" of urbanization rather than the "quality" of urbanization, and pays too much attention to the "low quality" urbanization construction of urbanization rate of urban resident population. Understanding of the urbanization of high-quality "registered population" is not enough.

The Present Situation of Rural Education Level in China. Rural education here refers to a
kind of big education, not confined to the regional boundaries, refers to all the education that can serve the modernization of rural areas and promote the development of urbanization. Based on the principle of consolidation and improvement, the development of basic education in rural areas has merged some schools, improved the conditions of running schools, improved the quality of teaching, and constantly integrated the resources of rural education. There are still many problems in the development of rural education in China. Because of the influence of the local economic development level, rural schools are often short of teachers, and the backward teaching equipment restricts the improvement of education level. In recent years, due to the government's attention and the promotion of various social factors, the teaching conditions in rural areas have been constantly improved, and the teaching level has tended to standardize. But in 2015, the per capita education period of rural population was 8.82 years, which was still lower than the nine-year compulsory education level, indicating that there is still a lot of room to improve the education level in rural areas.

Relevance Analysis of Rural Education Level and Urbanization Level.

The improvement of education level mainly affects the process of urbanization through the following ways: firstly, it can improve the working ability and problem-solving ability of workers, improve work efficiency, and then raise wage level; secondly, the improvement of individual education level can also reduce the cost of job-hunting, such as: more convenient means of transportation can be chosen like fire. Traffic, subway, etc. are used to reduce the transportation cost of job-seeking, and the information cost is reduced by collecting job information through network and other resources. With the development of rural economy and the acceleration of urbanization, some industries have gradually declined, such as traditional aquaculture and planting, while others have gradually risen, such as deep processing of agricultural products, transportation services, etc. The change of industrial structure has led to the change of talent demand. The change of talent demand necessarily requires horizontal education. To adjust the structure; the development of urbanization process will inevitably be accompanied by the continuous improvement of the level of Industrial Science and technology, which requires us to adjust the proportion of investment in primary, secondary and higher education in a timely manner, so that the educational structure can adapt to the changes of this level of technology, so as to meet the needs of scientific and technological talents at all levels in urbanization, if we can adjust the educational conclusion in a timely manner Constructing and meeting the talent demand of industrial structure evolution in the process of urbanization will be beneficial to the transfer of rural surplus labor force and the acceleration of urbanization process.

The Impact of China's Rural Education Level on China's Urbanization

Model Setting and Estimation Method. According to the traditional literature on the level of urbanization, there are many factors affecting the level of urbanization, including farmers' education level, farmers' income, investment in rural education funds, government policies, and various factors in urban life. This paper mainly discusses the impact of rural education level on the level of urbanization. The independent variables are the length of education per capita of rural labor force and the disposable income per capita of rural labor force, and the dependent variables are the level of urbanization. This paper constructs the following model:

\[
URBAN = \partial_0 + \partial_1 EDU + \partial_2 INCOME + \lambda
\]

Among them, URBAN is the level of urbanization, EDU is the level of rural labor per capita education years, INCOME represents the rural per capita disposable income, \(\partial_1\) is the marginal impact of rural labor education years on the level of urbanization, \(\partial_2\) is the change of rural labor per capita disposable income on the level of urbanization, and \(\lambda\) is the rural labor force per capita education years and rural per capita disposable income factors other than the impact of urbanization level. For better analysis, natural logarithms on both sides of the above model can be obtained:
\[
\ln C = \beta_0 + \beta_1 \ln EDU + \beta_2 \ln EDU^2 + \mu \tag{2}
\]

Among them, \(\beta_1\) to measure the elasticity of the increase of the per capita education years of rural labor force on the level of urbanization, if \(\beta_1 > 0\) it shows that the change direction of the per capita education years is consistent with the change direction of the urbanization level, the improvement of the education level of rural labor force has a positive impact on the level of urbanization, and if \(\beta_1 < 0\), the improvement of the education level of rural labor force. High level has a negative impact on the level of urbanization. If \(\beta_2 > 0\) it shows that the per capita disposable income in rural areas is consistent with the change direction of urbanization level, the increase of per capita disposable income in rural areas has a positive impact on the level of urbanization, and if \(\beta_2 < 0\) it shows that the increase of per capita disposable income in rural areas has a negative impact on the level of urbanization.

**Data Selection and Variable Description.** This paper intends to analyze the relationship between the urbanization rate and the education level of rural labor force, so it is necessary to collect statistical data from these two aspects in the selection of data. Because of the uncertainty of the region in the process of peasants' transformation to urban citizens, effective data analysis can only be based on the time series data analysis of the above two kinds of data in the whole of China. For the data of urbanization rate in China over the years, it can be easily inquired in the China Statistical Yearbook, but the data about the education level of rural residents or labor force can not be directly obtained in the general statistical yearbook. In view of the availability and relative accuracy of the data, based on the relevant data in China's Rural Statistical Yearbook, the author uses Guo Zhiyi's (2007) method for reference: the educational level of "illiteracy or little literacy" is assigned to 3, the educational level of "primary school" is assigned to 6, and the educational level of "junior high school" is assigned to 9. The educational level of "senior high school" and "secondary technical school" is 12, and that of "junior college" or above is 15. According to the proportion of workers with different educational levels, the average number of years of education per capita of rural labor force is obtained. This data is used to reflect the educational level of rural labor force. Considering the availability and timeliness of data, the data used in this chapter are the annual data from 1985 to 2015 in China.

**Error Correction Model Establishment and Result Analysis.** Through the above analysis, it has been proved that there is a co-integration relationship between the sequences, so the error correction model can be established. The estimated results are as follows:

\[
\ln URBAN = 0.555 + 0.705 \ln EDU + 0.208 \ln INCOME \tag{3}
\]

To sum up, first of all, there is a strong correlation between the education level of rural labor force and the urbanization rate, and they are positively correlated. The autoregressive equation shows that the elasticity of the urbanization level on the length of education per capita in rural areas is 0.705, and that of the disposable income per capita in rural areas is 0.208. Empirical analysis shows that in the short term, rural per capita education years of 1%, resulting in an increase of 0.705% in urbanization level, is consistent with the empirical data of 1965 U.S. economist Michelle Gisser. Rural per capita disposable income increased by 1%, resulting in an increase of 0.208% in urbanization level. It shows that the improvement of education level of rural labor force does play a significant role in the improvement of urbanization rate, which shows the importance of rural education in promoting the process of urbanization. In addition, the comparative analysis of the impact of rural education and higher education on the urbanization rate, as well as the analysis of the different effects of different levels of education in rural areas (such as nine-year basic education, vocational education, general high school education) on the urbanization rate level and their effects, are the places to be further studied in this paper.
Summary and Policy Recommendations

With the end of China's demographic dividend, China has gradually entered the stage of low fertility and low mortality. At this stage, China's population of working age continues to decline, and the scale of labor force is further reduced. How to maintain the sustainable development of China's economy in this "double decline" so as to overcome the "middle income trap"? The new urbanization construction is also the reform of household registration system, which can effectively promote China's current economic development and release the potential of China's economic development, so as to ensure that China will not fall into the so-called "middle income trap" and better promote the construction of socialist modernization. In the process of urbanization, the urbanization of rural population has played an important role in promoting, and the education level of rural population will greatly affect the income and cost of urbanization of rural population, and then affect the development of new urbanization. The results of the model also show that the per capita years of education in rural areas have a significant impact on the level of urbanization. The influence of the book. In the following, this paper will put forward suggestions for the construction of new urbanization.

Firstly, to meet the needs of urbanization, we should reform the mode and structure of rural education. We should speed up the reform of the labor market and promote urbanization with market forces. The demand for labor in the existing labor market is not entirely based on the needs of the market, and there is a greater restriction on the labor force. For example, some jobs have made some restrictions on the domicile of workers, which damages the rights and interests of some workers, and can not bring the best effect of labor allocation. Speeding up the reform of the labor market means removing this part of unreasonable restrictions, reforming the existing situation of labor supply and demand, and allocating labor resources by means of complete marketization.

Second, increase investment in rural education and strive to achieve equity in urban and rural education. The central and provincial governments should increase their investment in basic education in rural areas, vigorously develop the counterpart support between East and west, urban and rural areas, strengthen the transfer payments to underdeveloped areas in economically developed areas, and actively use "Hope Project" and "Spring Bud Plan" to help the development of rural education. In the process of investment in education funds, we should prevent the funds from being intercepted and misappropriated; in the allocation of funds, we should determine the allocation proportion reasonably according to the rural economic situation in different areas, so as to ensure the maximum utilization efficiency of investment in education.

Thirdly, we should reform the existing social security system and achieve full coverage of the permanent population in basic social security cities. After the full coverage of permanent population in basic social security cities has been realized, it can effectively reduce the risks that residents may encounter in the future, reduce the savings to cope with future risks, and increase the consumption propensity of residents. At the same time, the establishment of a social security system covering the permanent population of all cities can effectively promote social equity. By means of redistribution, the gap between the rich and the poor can be reduced, which will have a greater benefit for maintaining social equity, justice, harmony and stability.

Fourthly, we should change the functions of the government and give full play to its service role in the transfer of rural labor force. The urbanization construction with people as the core is to make the non-registered population of the city equally enjoy the social welfare and security of the registered population of the city. Therefore, in the process of urbanization, an important issue is how local governments get the funds needed to promote the reform of the household registration system. Accelerating the reform of the existing financial market and enabling local governments to obtain the funds needed to promote new urbanization in the financial market will effectively improve the motive force of local governments to promote high-quality urbanization, make full use of the advantages of the government to play its management role in the transfer of rural labor force, and significantly accelerate the construction of new urbanization. 
References